



Oral Health of United States Adults

The National Survey of Oral Health in U.S. Employed Adults and Seniors: 1985-1986

Public Use Data File Documentation and Survey Methodology

Part I: Employed Adults

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
National Institutes of Health



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For Administrative Use Only

Epidemiology and Oral Disease Prevention Program
National Institute of Dental Research

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Acknowledgments

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Foreword

In the early 1980s, evaluations of available information on the oral health of U.S. adults revealed major gaps in our knowledge of the epidemiology of coronal caries, root surface caries, and periodontal diseases. To fill in these gaps, the National Institute of Dental Research (NIDR) began planning a comprehensive survey to assess the oral health status of adult Americans. Survey objectives were developed, diagnostic criteria finalized, sampling and data collection procedures tested, field logistics evaluated, and data dissemination plans outlined.

In 1985-86, the National Survey of Oral Health in U.S. Employed Adults and Seniors was conducted. Data dissemination began in March 1987, when provisional results from the survey were presented to the annual meeting of the International Association for Dental Research. In August 1987, a monograph entitled "Oral Health of United States Adults 1985-86" was released. The monograph presented national estimates of edentulism, dentulism, coronal and root surface caries, and periodontal diseases in employed adults aged 18 to 65 and in senior citizens aged 65 and older. A companion volume, published in 1988, reported regional findings for each of the seven geographic areas into which the country was stratified in the survey design. The results of more detailed analyses have appeared in refereed journals, and on several occasions NIDR staff have prepared special tabulations for use by outside investigators. From the beginning, however, a major objective of the data dissemination plan for the survey was to make the data available to outside investigators in the form of public use micro-data files.

This objective has been met with the publication of "Public Use Data File Documentation and Survey Methodology Part I: Employed Adults" and "Public Use Data File Documentation and Survey Methodology Part II: Seniors." To make these documentations as complete and user-friendly as possible, essential information for accurate use of the data file has been complemented by ancillary information about the survey design, field procedures, and appropriate approaches to weighting the data and to computing estimates of sampling errors for specific parameters. A bibliography of selected references has also been included to direct users to previous analyses of the data and to help identify substantive and methodological considerations that may be applicable to particular uses of the data.

The files from the National Survey of Oral Health in U.S. Employed Adults and Seniors are excellent examples of the kind of data sharing that is feasible and that ought to become more routine. Although these files are not the first public use data files to be released by the National Institutes of Health (NIH), they are the very first public use micro-data files to be released by NIH to the National Archives under NIH's new Guideline 3000-G-4 for permanent data files.

Finally, the publication of these volumes marks the initiation of the NIDR's Public Use MicroData Release Program. Parallel efforts are currently under way to develop public use microdata files for previous and recent surveys of caries in U.S. schoolchildren. As these

public use micro-data files become available, the need for oral health data users' workshops is anticipated and these will be encouraged.

Many individuals within and outside the Institute have contributed to the completion of these data files. To all I extend the appreciation of the NIDR.

A handwritten signature in black ink, reading "Harald Loe". The signature is fluid and cursive, with the first name "Harald" written in a larger, more prominent script than the last name "Loe".

Harald Loe, D.D.S.

Director

National Institute of Dental Research

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Public Use Data File Documentation and Survey Methodology

Part I: Employed Adults

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National Institutes of Health

I. INTRODUCTION

The file documentation presented in this manual pertains to epidemiologic data collected through the National Survey of Oral Health in U.S. Employed Adults (OHEA) and Seniors (OHS) which was sponsored by the Epidemiology and Oral Disease Prevention Program of the National Institute of Dental Research (NIDR), National Institutes of Health, U.S. Public Health Service. The survey was conducted by Westat, Inc., of Rockville, MD, under contract number N01-DE-42553 between June 1984 and December 1986.

The Survey was designed to establish the prevalence of coronal caries, root surface caries and periodontal destruction in a readily accessible adult population with sufficient precision to permit future detection of changes by geographic region and within 5-year age intervals. This survey was the first national study to provide information on both coronal and root caries and to measure periodontal destruction. Data were collected from two distinct populations: employed adults who were given oral health examinations within their employment settings, and adults age 65 and over who were examined in a sample of senior centers located in the same counties or contiguous counties, which were the primary sampling units (PSUs). Identical survey instruments were used with the two groups for collecting and recording

demographic and clinical data. The samples included a total of 15,132 employed adults and 5,686 seniors. A total of 20,818 dental examinations were conducted in 994 facilities, including 786 participating businesses and 208 senior centers.

Survey Objectives

The objectives of this survey were

- to provide estimates of the prevalence of oral disease;
- to detect variations in caries and periodontal destruction by geographic region;
- to provide a basis for assessment of the effects of implementing new caries and periodontal prevention measures; and
- to identify groups with high levels of disease so that preventive research strategies can be developed.

The documentation for these two surveys is presented in two separate volumes, each of which corresponds to one of the two groups in the study. Each volume contains a detailed description of the data files, as well as similar information on the overall survey design and administration, field procedures, and the oral examination quality control procedures. Parallel sampling procedures, which differed for the two groups, are presented in the appropriate volume. Each volume also includes a glossary and references.

Description of Survey Data

The information provided herein regarding the description and methodology of the survey is intended to provide the researcher with the knowledge needed for independent and appropriate use of the data. This document will also allow researchers to evaluate the strengths and limitations of the data. Adequate computer and statistical resources to manage data from a complex sample survey effectively and efficiently are necessary.

With the goal of mutual benefit, the NIDR requests that users of these data cooperate in certain actions:

- The National Institute of Dental Research is responsible for only the initial data. Any published material derived from these data should acknowledge the NIDR as the original source. It should also include a disclaimer that credits any analyses, interpretations, or conclusions reached to the author and not to the NIDR. An example of this citation is shown below.

The National Survey of Oral Health of Employed Adults and Seniors was conducted by the National

**Institute of Dental Research, National Institutes of
Health, Public Health Service, Department of
Health and Human Services, 1985-86.**

- **Users who wish to publish technical descriptions of the data should make a reasonable effort to ensure that their descriptions are consistent with those published by the NIDR. The NIDR is not obligated to review such descriptions, however.**

II. SAMPLE DESIGN

Sampling Frame

The sampling frame for the survey of employed adults was the list of U.S. establishments categorized according to standard industrial classification (SIC). This coding system developed by the U.S. Bureau of the Census and U.S. businesses divides virtually all economic activity into the 10 major divisions shown below:

- 01-09 Agriculture, forestry, and fishing
- 10-14 Mining
- 15-17 Construction
- 20-39 Manufacturing
- 40-49 Transportation, communication, and public utilities
- 50-51 Wholesale trade
- 52-59 Retail trade
- 60-67 Finance, insurance, and real estate services
- 70-89 Business services
- 91-97 Health/social services and public administration

Excluded from the survey because of lack of access or economic reasons were employees in the categories of agriculture and mining, as well as household domestics. The names and addresses of the establishments, as well as other information on businesses, were found in Dun's Marketing Index (DMI). Subsamples of the DMI were purchased from Dun & Bradstreet. The DMI was supplemented with lists of postal facilities and other space owned or rented and occupied by Federal agencies.

Stages of Sample Design

The sample of employed adults was selected through the use of a cascading five-stage sample design that comprised, successively,

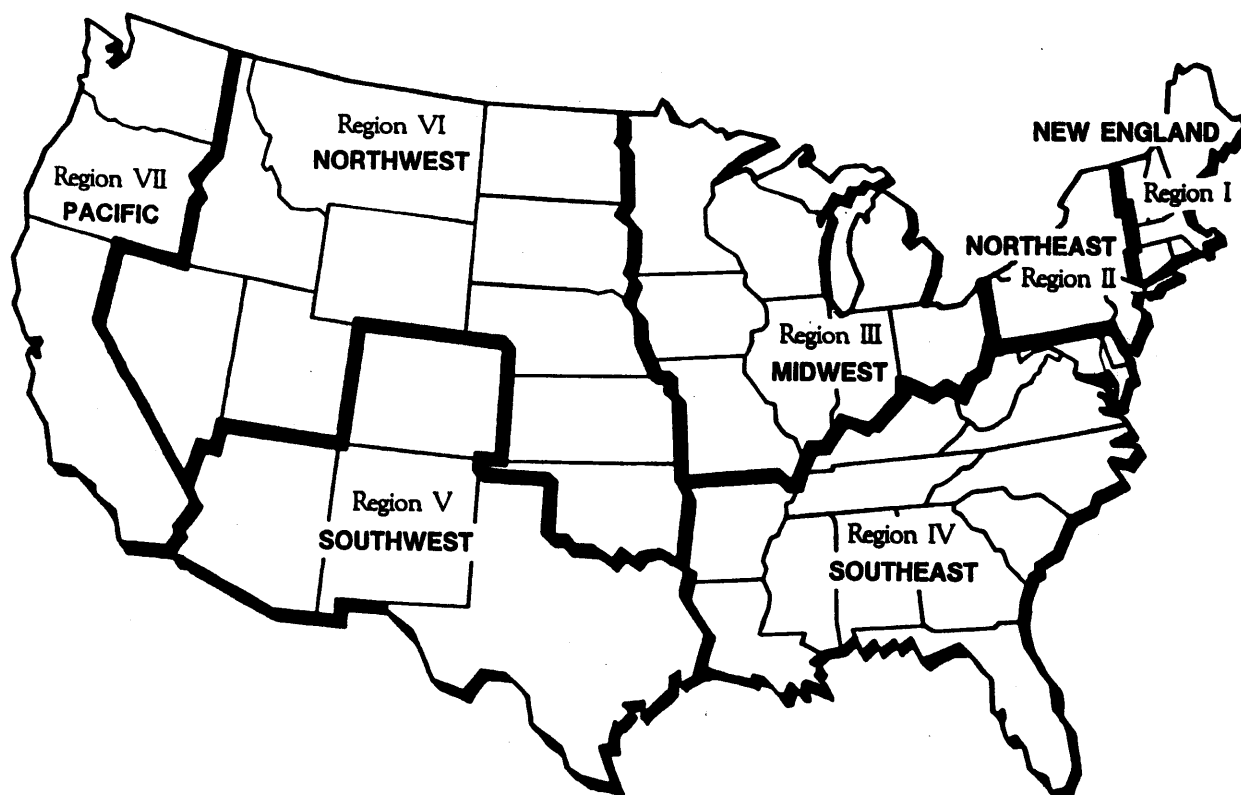
- (1) *Primary sampling units (PSUs)*—counties, or groups of contiguous counties.
- (2) *ZIP code areas* within counties.
- (3) *Clusters* of business establishments within ZIP code areas.
- (4) *Establishments* within clusters.
- (5) *Employees* of these establishments.

The counties or groups of counties designated as PSUs were selected by standard methods and stratified to the extent practicable, to select the sample with probability proportionate to size. The stratification variables were

- standard metropolitan statistical areas (SMSAs) vs. non-SMSAs;
- percent urban;
- income;
- percent establishments with 100+ employees; and
- percent minority employees.

Geographic Regions

The 48 contiguous States (Alaska and Hawaii were excluded) were divided into geographic regions to coincide with those of the 1979-80 survey of school children.



Geographic Regions for the Survey.

<i>Region I—New England:</i>	Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont
<i>Region II—Northeast:</i>	New Jersey, New York, and Pennsylvania
<i>Region III—Midwest:</i>	Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio, and Wisconsin
<i>Region IV—Southeast:</i>	Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia, and the District of Columbia
<i>Region V—Southwest:</i>	Arizona, Colorado, New Mexico, and Texas
<i>Region VI—Northwest:</i>	Idaho, Kansas, Montana, Nebraska, Nevada, North Dakota, Utah, and Wyoming
<i>Region VII—Pacific:</i>	California, Oregon, and Washington

For each geographic region, the final selected sample included 10 representative PSUs.

The clusters were defined as large establishments with 150 or more employees or groups of smaller establishments satisfying three criteria:

- (1) ***Physical Size.*** Clusters were as small and as compact geographically as feasible to minimize travel within clusters.
- (2) ***Selection Probability.*** Clusters were large enough to permit subsampling of establishments in such a way as to achieve equal probabilities of selection within each of three size class groupings throughout each region. The probabilities varied among the size classes, as well as among regions.
- (3) ***Sample Size.*** Clusters were selected to provide approximately equal numbers of examinees in each—about 54 in clusters with establishments having 50-149 employees, 27 in the clusters of smaller businesses. The average number of clusters per PSU was four.

Within clusters, the establishments were sampled at rates that would achieve uniform probabilities of selection (within a region) for each of three classes of establishments. The relationship among the sampling rates is shown below.

<i>Size Class</i>	<i>Sampling Rate</i>
50-149 employees	r
5-49 employees	1/2 r
1-4 employees	1/3 r

Most clusters were defined as containing the required number of establishments plus a number of reserve establishments to replace any businesses that chose not to participate in the study. In firms with fewer than 10 employees, all employees were targeted for examination; employees in establishments with 10 or more employees were subsampled.

From each large establishment a sample of 72 employees (a cost-effective size sample requiring about 3 days' examiner time) was chosen. The sampling rate was such that all employees in a large establishment had equal chances of selection. Because more younger than older people are employed, employees 40 years old and over were twice as likely to be selected as their younger counterparts. By design, the 2:1 ratio in sampling rates provided approximately equal sample sizes for the nine age groups for which separate analysis was desired. A small reserve sample of employees was picked for use as replacements for refusals or for persons working off site. The use of these sampling procedures produced a sample of business establishments that had the following characteristics:

	<i>U.S.</i>	<i>Region</i>
Number of PSUs	70	10
Number of clusters	280	40
Number of establishments	786	112
Number of persons examined	15,132	2,162

Weighting the Sample

The employed sample was weighted for each stage of selection. Among the 70 PSUs (10 each for 7 regions), 18 of the largest PSUs were SMSAs that constituted strata by themselves. From each of the remaining 52 strata, one PSU was selected with probability proportionate to size. The measure of size used to select PSUs was a function of employment levels for different sizes of establishments, as reported on the 1980 County Business Patterns Tape (U.S. Bureau of the Census). The PSU selection weight was equal to the sum of all PSU sizes in a stratum, divided by the size of the selected PSU for that stratum.

The weights for large establishments were adjusted for the original subsampling of Dun & Bradstreet lists and further subsampling based on size within region. Adjustments were also made for replacements and for refusals. The final count of cooperating large establishments was 137, the number per PSU varying between 1 and 9. Weights for large establishments were truncated at 1,500.

For small establishments, subsampling of some ZIP code areas was done. A total of 101 ZIP codes and ZIP code groups (total, 171 ZIP codes) were systematically selected within PSUs with probability proportionate to size. The measure of size was similar to that used for selecting PSUs. One or two (up to a maximum of three) establishment clusters were selected from each ZIP code group. This resulted in a total of 145 clusters with at least one participating establishment.

Stratifying small establishments within cluster by size and systematically selecting them with equal probability resulted in the selection of one to nine (but usually fewer than three) establishments per cluster. Establishment weight adjustments made for nonresponses, additions, substitutions, and out-of-scope (e.g., closed) businesses brought the total number of small establishments with positive weights to 649.

The weights for employees within establishments were calculated in the same manner for both large and small establishments on the basis of four variables: total number of employees, number of employees sampled, number of employees in scope (i.e., eligible), and number of subjects examined.

The final weights for employed persons were ratio-adjusted to agree with totals from the 1985 County Business Patterns (U.S. Bureau of the Census) and the 1985 annual average numbers of employed persons obtained from the Current Population Survey (U.S. Bureau of Labor Statistics). Adjusted by SIC, as well as establishment size class, the samples were then weighted by gender, age group (18-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, ≥ 65), and race (white, Hispanic, Black and other).

Errors in the Data Set and Published Differences

The data have been subjected to a great deal of careful editing. However, due to the large volume of data, a small number of errors or discrepancies potentially remain undetected. Any such errors should be brought to the attention of the NIDR so that new corrected copies of the file can be created and errata sheets issued.

In general, differences shown by comparisons between these data and previously published results have been attributed to analytical decisions, such as the exclusion of certain sample cases, and the methodology for handling missing data.

The file contains 15,132 records, containing 892 characters each. A detailed file description (location, description, and codes; number of records with specific codes) is followed by selected file location detail and summary tables.

III. PUBLIC USE DATA FILE DESCRIPTION

File Subsection	Page
SOCIODEMOGRAPHIC CHARACTERISTICS AND DENTAL HISTORY	13
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ROOT CARIES ASSESSMENT	113
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**SOCIODEMOGRAPHIC CHARACTERISTICS
AND DENTAL HISTORY
1-48**

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132**

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
	SOCIODEMOGRAPHIC CHARACTERISTICS	
1	Region	
	1 - New England	2093
	2 - Northeast	2045
	3 - Midwest	2138
	4 - Southeast	1744
	5 - Southwest	1990
	6 - Northwest	2583
	7 - Pacific	2539
2-3	Primary Sampling Unit Identification	
	[01-99]	15132
4-5	Cluster Identification	
	[01-99]	15132
6-8	Facility Identification	
	[101-999]	15132
9	Size of Establishment	
	1 - 1-4 employees	628
	2 - 5-9 employees	830
	3 - 10-49 employees	2387
	4 - 50-99 employees	3240
	5 - ≥100 employees	8047
10-12	Person Identification	
	000-999	15132
13	Gender	
	1 - Male	7480
	2 - Female	7652
14-15	Age	
	18-83 - Actual age in years	15132

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132**

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
16-17	Age Recode	
	01 - 18-19	294
	02 - 20-24	1646
	03 - 25-29	2072
	04 - 30-34	1887
	05 - 35-39	1780
	06 - 40-44	1940
	07 - 45-49	1398
	08 - 50-54	1792
	09 - 55-59	1227
	10 - 60-64	765
	11 - 65+	331
18-19	Race (Self-determined)	
	01 - White, not Hispanic	11242
	02 - White, Hispanic	1439
	03 - Black, not of Hispanic origin	1570
	04 - Black, Hispanic origin	132
	05 - American Indian or Alaskan Native	103
	06 - Asian or Pacific Islander	494
	10 - Other	5
	98 - Don't know	1
	99 - Refused	146
20	Hispanic Ancestry	
	1 - Hispanic	1571
	2 - Non-Hispanic	13414
	9 - Unknown	147
21	Education (Years of Schooling)	
	1 - Less than 8 years	603
	2 - 8 through 11 years	1249
	3 - 12 years or equivalent	4279
	4 - More than 12 years	2470
	5 - 13 through 15 years	3014
	6 - 16 years or more	3417
	7 - Refused	1
	8 - Don't know	1
	9 - Not ascertained	98

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132**

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
22-23	Number of Persons Living in Household	
	01-15 - Actual number of persons	14933
	99 - Not ascertained	199
24-25	Household Income (total yearly)	
	01 - Under \$ 2,500	265
	02 - \$2,500 - \$7,499	515
	03 - \$7,500 - \$12,499	1163
	04 - \$12,500 - \$19,999	2366
	05 - \$20,000 - \$29,999	3132
	06 - \$30,000 - \$39,999	2792
	07 - \$40,000 - \$49,999	1761
	08 - \$50,000 and over	2474
	97 - Refused	39
	98 - Don't know	67
	99 - Not ascertained	558
26-27	Household Income Recode	
	01 - < \$7,500	780
	02 - \$7,500 - \$19,999	3529
	03 - \$20,000 and over	10159
	09 - Refused, don't know, not ascertained	664
28-30	Occupation Code	
	004-889 - Occupation	14927
	(Occupation codes are from the 1980 Census of Population, Alphabetical Index of Industries and Occupations.)	
	996 - Retired person	16
	997 - Refused	1
	998 - Don't know	0
	999 - Not ascertained	188

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132**

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
31	Covered by Dental Insurance (Partial or full payment including Medicare or Medicaid) 1 - Yes 2 - No 7 - Refused 8 - Don't know 9 - Not ascertained	 9182 5800 1 7 142
32	Interval Since Last Dental Visit 1 - Within past 12 months 2 - 1 - 2 years 3 - 3 - 5 years 4 - More than 5 years 5 - Never received dental care 7 - Refused 8 - Don't know 9 - Not ascertained	 8820 3204 1593 1228 199 1 0 87
33	Last Dental Visit Interval Recode 1 - Less than 12 months 2 - 1 - 5 years 3 - More than 5 years or never 9 - Don't know, refused, not ascertained	 8820 4797 1427 88

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE**

NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
34-35	First Reason for Last Dental Visit	
	01 - No visit	199
	02 - Regular checkup	5924
	03 - Teeth cleaned	2608
	04 - Teeth filled/broken tooth	1972
	05 - Teeth pulled or other surgery	1598
	06 - Toothache	514
	07 - Adjustment or repair of denture/ bridgework	694
	08 - Have a denture made	590
	09 - For a prescription	5
	10 - Bleeding gums or periodontal disease	188
	11 - Loose teeth	39
	12 - Problems with wisdom teeth	156
	13 - Other reasons	19
	14 - Orthodontics	58
	15 - Caps and crowns/bonding	296
	16 - Root canal	100
	17 - Abscess	6
	18 - Temporomandibular joint (TMJ)	6
	19 - Accident [Type of injury not specified]	5
	97 - Refused	1
	98 - Don't know	3
	99 - Not ascertained	151

NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
36-37	Second Reason for Last Dental Visit	
	01 - Inapplicable or only one reason given	13311
	02 - Regular checkup	1
	03 - Teeth cleaned	713
	04 - Teeth filled/broken tooth	335
	05 - Teeth pulled or other surgery	102
	06 - Toothache	94
	07 - Adjustment or repair of denture/ bridgework	96
	08 - Have a denture made	127
	09 - For a prescription	2
	10 - Bleeding gums or periodontal disease	79
	11 - Loose teeth	37
	12 - Problems with wisdom teeth	64
	13 - Other reasons	6
	14 - Orthodontics	10
	15 - Caps and crowns/bonding	92
	16 - Root canal	57
	17 - Abscess	4
	18 - TMJ	1
	19 - Accident [Type of injury not specified]	1
38	Currently in Need of Dental Treatment	
	1 - Yes	7461
	2 - No	7517
	7 - Refused	1
	8 - Don't know	21
	9 - Not ascertained	132
39	How Soon Treatment Needed	
	0 - Inapplicable	7516
	1 - Immediately	2795
	2 - Within 6 months from now	3407
	3 - More than 6 months from now	462
	4 - Not at all	0
	5 - Currently receiving treatment	479
	7 - Refused	2
	8 - Don't know	12
	9 - Not ascertained	459
40-41	Examiner Number	
	[01-12]	15132

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132**

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
42-43	Recorder Number [01-12]	15132
44-45	Edentulous/Dentate 00 - Edentulous 01-28 - Dentate (number of permanent teeth)	799 14333
46	Blank - (data user work area)	15132
47	Upper Fixed/Removable Prosthesis 0 - No prosthesis 1 - Full upper denture 2 - Partial upper denture	11862 1457 1813
48	Lower Fixed/Removable Prosthesis 0 - No prosthesis 1 - Full lower denture 2 - Partial lower denture	12680 782 1670

CORONAL CARIES SURFACE ASSESSMENT
49-188

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132**

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
	CORONAL CARIES SURFACE ASSESSMENT	
	UPPER LEFT QUADRANT	
49-53	Upper Left Central Incisor	
49	Blank - (data user work area)	15132
50	<i>Lingual Surface</i>	
	0 - Normal sound surface	
	1 - Caries	11087
	2 - Filled	55
	3 - 1 caries + 1 filled	1598
	4 - Recurrent disease	1
	5 - Caries + recurrent	13
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	3
	8 - Missing due to non-disease (trauma)	1857
	9 - Excluded surface (present in mouth)	247
		271
51	<i>Buccal Surface</i>	
	0 - Normal sound surface	
	1 - Caries	11581
	2 - Filled	55
	3 - 1 caries + 1 filled	1110
	4 - Recurrent disease	0
	5 - Caries + recurrent	10
	6 - Recurrent + filled	1
	7 - Missing due to disease (extracted)	0
	8 - Missing due to non-disease (trauma)	1857
	9 - Excluded surface (present in mouth)	247
		271
52	<i>Mesial Surface</i>	
	0 - Normal sound surface	
	1 - Caries	10018
	2 - Filled	187
	3 - 1 caries + 1 filled	2518
	4 - Recurrent disease	1
	5 - Caries + recurrent	30
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	3
	8 - Missing due to non-disease (trauma)	1857
	9 - Excluded surface (present in mouth)	247
		271

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE**

NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
53	<i>Distal Surface</i>	
	0 - Normal sound surface	9955
	1 - Caries	169
	2 - Filled	2598
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	31
	5 - Caries + recurrent	0
	6 - Recurrent + filled	4
	7 - Missing due to disease (extracted)	1857
	8 - Missing due to non-disease (trauma)	247
	9 - Excluded surface (present in mouth)	271
54-58	Upper Left Lateral Incisor	
54	Blank - (data user work area)	15132
55	<i>Lingual Surface</i>	
	0 - Normal sound surface	10299
	1 - Caries	97
	2 - Filled	2280
	3 - 1 caries + 1 filled	2
	4 - Recurrent disease	16
	5 - Caries + recurrent	1
	6 - Recurrent + filled	5
	7 - Missing due to disease (extracted)	1968
	8 - Missing due to non-disease (trauma)	365
	9 - Excluded surface (present in mouth)	99
56	<i>Buccal Surface</i>	
	0 - Normal sound surface	11508
	1 - Caries	77
	2 - Filled	1101
	3 - 1 caries + 1 filled	2
	4 - Recurrent disease	12
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1968
	8 - Missing due to non-disease (trauma)	365
	9 - Excluded surface (present in mouth)	99

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE**

NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
57	<i>Mesial Surface</i>	
	0 - Normal sound surface	9733
	1 - Caries	222
	2 - Filled	2715
	3 - 1 caries + 1 filled	1
	4 - Recurrent disease	25
	5 - Caries + recurrent	0
	6 - Recurrent + filled	4
	7 - Missing due to disease (extracted)	1968
	8 - Missing due to non-disease (trauma)	365
	9 - Excluded surface (present in mouth)	99
58	<i>Distal Surface</i>	
	0 - Normal sound surface	10459
	1 - Caries	166
	2 - Filled	2037
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	37
	5 - Caries + recurrent	0
	6 - Recurrent + filled	1
	7 - Missing due to disease (extracted)	1968
	8 - Missing due to non-disease (trauma)	365
	9 - Excluded surface (present in mouth)	99
59-63	Upper Left Cuspid	
59	Blank - (data user work area)	15132
60	<i>Lingual Surface</i>	
	0 - Normal sound surface	11509
	1 - Caries	54
	2 - Filled	1625
	3 - 1 caries + 1 filled	2
	4 - Recurrent disease	13
	5 - Caries + recurrent	0
	6 - Recurrent + filled	2
	7 - Missing due to disease (extracted)	1667
	8 - Missing due to non-disease (trauma)	223
	9 - Excluded surface (present in mouth)	37

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE**

NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
61	<i>Buccal Surface</i>	
	0 - Normal sound surface	12110
	1 - Caries	78
	2 - Filled	1001
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	16
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1667
	8 - Missing due to non-disease (trauma)	223
	9 - Excluded surface (present in mouth)	37
62	<i>Mesial Surface</i>	
	0 - Normal sound surface	11596
	1 - Caries	107
	2 - Filled	1478
	3 - 1 caries + 1 filled	1
	4 - Recurrent disease	21
	5 - Caries + recurrent	0
	6 - Recurrent + filled	2
	7 - Missing due to disease (extracted)	1667
	8 - Missing due to non-disease (trauma)	223
	9 - Excluded surface (present in mouth)	37
63	<i>Distal Surface</i>	
	0 - Normal sound surface	10926
	1 - Caries	122
	2 - Filled	2126
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	26
	5 - Caries + recurrent	0
	6 - Recurrent + filled	5
	7 - Missing due to disease (extracted)	1667
	8 - Missing due to non-disease (trauma)	223
	9 - Excluded surface (present in mouth)	37

NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
64-68	Upper Left 1st Bicuspid	
64	<i>Occlusal Surface</i>	
	0 - Normal sound surface	6120
	1 - Caries	191
	2 - Filled	5371
	3 - 1 caries + 1 filled	2
	4 - Recurrent disease	21
	5 - Caries + recurrent	0
	6 - Recurrent + filled	2
	7 - Missing due to disease (extracted)	2545
	8 - Missing due to non-disease (trauma)	859
	9 - Excluded surface (present in mouth)	21
65	<i>Lingual Surface</i>	
	0 - Normal sound surface	10698
	1 - Caries	74
	2 - Filled	928
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	7
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	2545
	8 - Missing due to non-disease (trauma)	859
	9 - Excluded surface (present in mouth)	21
66	<i>Buccal Surface</i>	
	0 - Normal sound surface	10613
	1 - Caries	83
	2 - Filled	1002
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	9
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	2545
	8 - Missing due to non-disease (trauma)	859
	9 - Excluded surface (present in mouth)	21

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE**

NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
67	<i>Mesial Surface</i>	
	0 - Normal sound surface	9345
	1 - Caries	97
	2 - Filled	2246
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	18
	5 - Caries + recurrent	0
	6 - Recurrent + filled	1
	7 - Missing due to disease (extracted)	2545
	8 - Missing due to non-disease (trauma)	859
	9 - Excluded surface (present in mouth)	21
68	<i>Distal Surface</i>	
	0 - Normal sound surface	7304
	1 - Caries	146
	2 - Filled	4223
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	31
	5 - Caries + recurrent	0
	6 - Recurrent + filled	3
	7 - Missing due to disease (extracted)	2545
	8 - Missing due to non-disease (trauma)	859
	9 - Excluded surface (present in mouth)	21
69-73	Upper Left 2nd Bicuspid	
69	<i>Occlusal Surface</i>	
	0 - Normal sound surface	5647
	1 - Caries	200
	2 - Filled	6162
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	17
	5 - Caries + recurrent	0
	6 - Recurrent + filled	6
	7 - Missing due to disease (extracted)	2878
	8 - Missing due to non-disease (trauma)	203
	9 - Excluded surface (present in mouth)	19

NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
70	<i>Lingual Surface</i>	
	0 - Normal sound surface	10749
	1 - Caries	80
	2 - Filled	1198
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	5
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	2878
	8 - Missing due to non-disease (trauma)	203
	9 - Excluded surface (present in mouth)	19
71	<i>Buccal Surface</i>	
	0 - Normal sound surface	10807
	1 - Caries	82
	2 - Filled	1140
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	3
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	2878
	8 - Missing due to non-disease (trauma)	203
	9 - Excluded surface (present in mouth)	19
72	<i>Mesial Surface</i>	
	0 - Normal sound surface	7917
	1 - Caries	123
	2 - Filled	3959
	3 - 1 caries + 1 filled	1
	4 - Recurrent disease	29
	5 - Caries + recurrent	0
	6 - Recurrent + filled	3
	7 - Missing due to disease (extracted)	2878
	8 - Missing due to non-disease (trauma)	203
	9 - Excluded surface (present in mouth)	19

NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
73	<i>Distal Surface</i>	
	0 - Normal sound surface	
	1 - Caries	7243
	2 - Filled	139
	3 - 1 caries + 1 filled	4626
	4 - Recurrent disease	1
	5 - Caries + recurrent	21
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	2
	8 - Missing due to non-disease (trauma)	2878
	9 - Excluded surface (present in mouth)	203
		19
74-78	Upper Left 1st Molar	
74	<i>Occlusal Surface</i>	
	0 - Normal sound surface	
	1 - Caries	2091
	2 - Filled	348
	3 - 1 caries + 1 filled	8882
	4 - Recurrent disease	31
	5 - Caries + recurrent	40
	6 - Recurrent + filled	1
	7 - Missing due to disease (extracted)	16
	8 - Missing due to non-disease (trauma)	3607
	9 - Excluded surface (present in mouth)	100
		16
75	<i>Lingual Surface</i>	
	0 - Normal sound surface	
	1 - Caries	6571
	2 - Filled	145
	3 - 1 caries + 1 filled	4656
	4 - Recurrent disease	3
	5 - Caries + recurrent	29
	6 - Recurrent + filled	1
	7 - Missing due to disease (extracted)	4
	8 - Missing due to non-disease (trauma)	3607
	9 - Excluded surface (present in mouth)	100
		16

NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
76	<i>Buccal Surface</i>	
	0 - Normal sound surface	9353
	1 - Caries	78
	2 - Filled	1965
	3 - 1 caries + 1 filled	2
	4 - Recurrent disease	8
	5 - Caries + recurrent	0
	6 - Recurrent + filled	3
	7 - Missing due to disease (extracted)	3607
	8 - Missing due to non-disease (trauma)	100
	9 - Excluded surface (present in mouth)	16
77	<i>Mesial Surface</i>	
	0 - Normal sound surface	6226
	1 - Caries	135
	2 - Filled	5001
	3 - 1 caries + 1 filled	1
	4 - Recurrent disease	42
	5 - Caries + recurrent	0
	6 - Recurrent + filled	4
	7 - Missing due to disease (extracted)	3607
	8 - Missing due to non-disease (trauma)	100
	9 - Excluded surface (present in mouth)	16
78	<i>Distal Surface</i>	
	0 - Normal sound surface	7504
	1 - Caries	90
	2 - Filled	3794
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	20
	5 - Caries + recurrent	0
	6 - Recurrent + filled	1
	7 - Missing due to disease (extracted)	3607
	8 - Missing due to non-disease (trauma)	100
	9 - Excluded surface (present in mouth)	16

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132**

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
79-83	Upper Left 2nd Molar	
79	<i>Occlusal Surface</i>	
	0 - Normal sound surface	3012
	1 - Caries	512
	2 - Filled	8236
	3 - 1 caries + 1 filled	25
	4 - Recurrent disease	37
	5 - Caries + recurrent	0
	6 - Recurrent + filled	9
	7 - Missing due to disease (extracted)	3183
	8 - Missing due to non-disease (trauma)	100
	9 - Excluded surface (present in mouth)	18
80	<i>Lingual Surface</i>	
	0 - Normal sound surface	9194
	1 - Caries	110
	2 - Filled	2514
	3 - 1 caries + 1 filled	2
	4 - Recurrent disease	11
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	3183
	8 - Missing due to non-disease (trauma)	100
	9 - Excluded surface (present in mouth)	18
81	<i>Buccal Surface</i>	
	0 - Normal sound surface	9712
	1 - Caries	116
	2 - Filled	1978
	3 - 1 caries + 1 filled	2
	4 - Recurrent disease	21
	5 - Caries + recurrent	0
	6 - Recurrent + filled	2
	7 - Missing due to disease (extracted)	3183
	8 - Missing due to non-disease (trauma)	100
	9 - Excluded surface (present in mouth)	18

NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
82	<i>Mesial Surface</i>	
	0 - Normal sound surface	8822
	1 - Caries	62
	2 - Filled	2931
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	16
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	3183
	8 - Missing due to non-disease (trauma)	100
	9 - Excluded surface (present in mouth)	18
83	<i>Distal Surface</i>	
	0 - Normal sound surface	9560
	1 - Caries	99
	2 - Filled	2154
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	16
	5 - Caries + recurrent	0
	6 - Recurrent + filled	2
	7 - Missing due to disease (extracted)	3183
	8 - Missing due to non-disease (trauma)	100
	9 - Excluded surface (present in mouth)	18
	UPPER RIGHT QUADRANT	
84-88	Upper Right Central Incisor	
84	Blank - (data user work area)	15132
85	<i>Lingual Surface</i>	
	0 - Normal sound surface	11123
	1 - Caries	56
	2 - Filled	1615
	3 - 1 caries + 1 filled	2
	4 - Recurrent disease	8
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1836
	8 - Missing due to non-disease (trauma)	249
	9 - Excluded surface (present in mouth)	243

NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
86	<i>Buccal Surface</i> 0 - Normal sound surface 1 - Caries 2 - Filled 3 - 1 caries + 1 filled 4 - Recurrent disease 5 - Caries + recurrent 6 - Recurrent + filled 7 - Missing due to disease (extracted) 8 - Missing due to non-disease (trauma) 9 - Excluded surface (present in mouth)	11591 62 1139 1 11 0 0 1836 249 243
87	<i>Mesial Surface</i> 0 - Normal sound surface 1 - Caries 2 - Filled 3 - 1 caries + 1 filled 4 - Recurrent disease 5 - Caries + recurrent 6 - Recurrent + filled 7 - Missing due to disease (extracted) 8 - Missing due to non-disease (trauma) 9 - Excluded surface (present in mouth)	10054 201 2511 2 33 0 3 1836 249 243
88	<i>Distal Surface</i> 0 - Normal sound surface 1 - Caries 2 - Filled 3 - 1 caries + 1 filled 4 - Recurrent disease 5 - Caries + recurrent 6 - Recurrent + filled 7 - Missing due to disease (extracted) 8 - Missing due to non-disease (trauma) 9 - Excluded surface (present in mouth)	9863 186 2712 0 42 0 1 1836 249 243
89-93	Upper Right Lateral Incisor	
89	Blank - (data user work area)	15132

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132**

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
90	<i>Lingual Surface</i>	
	0 - Normal sound surface	10368
	1 - Caries	79
	2 - Filled	2222
	3 - 1 caries + 1 filled	1
	4 - Recurrent disease	13
	5 - Caries + recurrent	2
	6 - Recurrent + filled	3
	7 - Missing due to disease (extracted)	1966
	8 - Missing due to non-disease (trauma)	377
	9 - Excluded surface (present in mouth)	101
91	<i>Buccal Surface</i>	
	0 - Normal sound surface	11460
	1 - Caries	60
	2 - Filled	1153
	3 - 1 caries + 1 filled	5
	4 - Recurrent disease	9
	5 - Caries + recurrent	0
	6 - Recurrent + filled	1
	7 - Missing due to disease (extracted)	1966
	8 - Missing due to non-disease (trauma)	377
	9 - Excluded surface (present in mouth)	101
92	<i>Mesial Surface</i>	
	0 - Normal sound surface	9813
	1 - Caries	220
	2 - Filled	2614
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	39
	5 - Caries + recurrent	0
	6 - Recurrent + filled	2
	7 - Missing due to disease (extracted)	1966
	8 - Missing due to non-disease (trauma)	377
	9 - Excluded surface (present in mouth)	101

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE**

NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
93	<i>Distal Surface</i> 0 - Normal sound surface 1 - Caries 2 - Filled 3 - 1 caries + 1 filled 4 - Recurrent disease 5 - Caries + recurrent 6 - Recurrent + filled 7 - Missing due to disease (extracted) 8 - Missing due to non-disease (trauma) 9 - Excluded surface (present in mouth)	 10530 163 1962 0 30 0 3 1966 377 101
94-98	<i>Upper Right Cuspid</i>	
94	Blank - (data user work area)	15132
95	<i>Lingual Surface</i> 0 - Normal sound surface 1 - Caries 2 - Filled 3 - 1 caries + 1 filled 4 - Recurrent disease 5 - Caries + recurrent 6 - Recurrent + filled 7 - Missing due to disease (extracted) 8 - Missing due to non-disease (trauma) 9 - Excluded surface (present in mouth)	 11561 56 1593 1 8 0 3 1647 225 38
96	<i>Buccal Surface</i> 0 - Normal sound surface 1 - Caries 2 - Filled 3 - 1 caries + 1 filled 4 - Recurrent disease 5 - Caries + recurrent 6 - Recurrent + filled 7 - Missing due to disease (extracted) 8 - Missing due to non-disease (trauma) 9 - Excluded surface (present in mouth)	 12078 84 1037 3 18 1 1 1647 225 38

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132**

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
97	<i>Mesial Surface</i>	
	0 - Normal sound surface	11599
	1 - Caries	103
	2 - Filled	1500
	3 - 1 caries + 1 filled	1
	4 - Recurrent disease	17
	5 - Caries + recurrent	0
	6 - Recurrent + filled	2
	7 - Missing due to disease (extracted)	1647
	8 - Missing due to non-disease (trauma)	225
	9 - Excluded surface (present in mouth)	38
98	<i>Distal Surface</i>	
	0 - Normal sound surface	11091
	1 - Caries	120
	2 - Filled	2000
	3 - 1 caries + 1 filled	1
	4 - Recurrent disease	10
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1647
	8 - Missing due to non-disease (trauma)	225
	9 - Excluded surface (present in mouth)	38
99-103	Upper Right 1st Bicuspid	
99	<i>Occlusal Surface</i>	
	0 - Normal sound surface	6152
	1 - Caries	158
	2 - Filled	5417
	3 - 1 caries + 1 filled	2
	4 - Recurrent disease	27
	5 - Caries + recurrent	1
	6 - Recurrent + filled	1
	7 - Missing due to disease (extracted)	2485
	8 - Missing due to non-disease (trauma)	868
	9 - Excluded surface (present in mouth)	21

NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
100	<i>Lingual Surface</i>	
	0 - Normal sound surface	10735
	1 - Caries	61
	2 - Filled	958
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	4
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	2485
	8 - Missing due to non-disease (trauma)	868
	9 - Excluded surface (present in mouth)	21
101	<i>Buccal Surface</i>	
	0 - Normal sound surface	10653
	1 - Caries	77
	2 - Filled	1020
	3 - 1 caries + 1 filled	1
	4 - Recurrent disease	6
	5 - Caries + recurrent	0
	6 - Recurrent + filled	1
	7 - Missing due to disease (extracted)	2485
	8 - Missing due to non-disease (trauma)	868
	9 - Excluded surface (present in mouth)	21
102	<i>Mesial Surface</i>	
	0 - Normal sound surface	9408
	1 - Caries	89
	2 - Filled	2246
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	14
	5 - Caries + recurrent	0
	6 - Recurrent + filled	1
	7 - Missing due to disease (extracted)	2485
	8 - Missing due to non-disease (trauma)	868
	9 - Excluded surface (present in mouth)	21

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE**

NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
103	<i>Distal Surface</i>	
	0 - Normal sound surface	7311
	1 - Caries	137
	2 - Filled	4277
	3 - 1 caries + 1 filled	1
	4 - Recurrent disease	28
	5 - Caries + recurrent	0
	6 - Recurrent + filled	4
	7 - Missing due to disease (extracted)	2485
	8 - Missing due to non-disease (trauma)	868
	9 - Excluded surface (present in mouth)	21
104-108	Upper Right 2nd Bicuspid	
104	<i>Occlusal Surface</i>	
	0 - Normal sound surface	5690
	1 - Caries	189
	2 - Filled	6050
	3 - 1 caries + 1 filled	2
	4 - Recurrent disease	37
	5 - Caries + recurrent	0
	6 - Recurrent + filled	4
	7 - Missing due to disease (extracted)	2942
	8 - Missing due to non-disease (trauma)	201
	9 - Excluded surface (present in mouth)	17
105	<i>Lingual Surface</i>	
	0 - Normal sound surface	10687
	1 - Caries	74
	2 - Filled	1204
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	6
	5 - Caries + recurrent	0
	6 - Recurrent + filled	1
	7 - Missing due to disease (extracted)	2942
	8 - Missing due to non-disease (trauma)	201
	9 - Excluded surface (present in mouth)	17

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132**

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
106	<i>Buccal Surface</i> 0 - Normal sound surface 1 - Caries 2 - Filled 3 - 1 caries + 1 filled 4 - Recurrent disease 5 - Caries + recurrent 6 - Recurrent + filled 7 - Missing due to disease (extracted) 8 - Missing due to non-disease (trauma) 9 - Excluded surface (present in mouth)	 10775 75 1114 0 7 0 1 2942 201 17
107	<i>Mesial Surface</i> 0 - Normal sound surface 1 - Caries 2 - Filled 3 - 1 caries + 1 filled 4 - Recurrent disease 5 - Caries + recurrent 6 - Recurrent + filled 7 - Missing due to disease (extracted) 8 - Missing due to non-disease (trauma) 9 - Excluded surface (present in mouth)	 7907 122 3922 0 20 0 1 2942 201 17
108	<i>Distal Surface</i> 0 - Normal sound surface 1 - Caries 2 - Filled 3 - 1 caries + 1 filled 4 - Recurrent disease 5 - Caries + recurrent 6 - Recurrent + filled 7 - Missing due to disease (extracted) 8 - Missing due to non-disease (trauma) 9 - Excluded surface (present in mouth)	 7278 128 4534 1 31 0 0 2942 201 17

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE**

NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
109-113	Upper Right 1st Molar	
109	<i>Occlusal Surface</i>	
	0 - Normal sound surface	2108
	1 - Caries	307
	2 - Filled	8815
	3 - 1 caries + 1 filled	25
	4 - Recurrent disease	68
	5 - Caries + recurrent	0
	6 - Recurrent + filled	12
	7 - Missing due to disease (extracted)	3681
	8 - Missing due to non-disease (trauma)	97
	9 - Excluded surface (present in mouth)	19
110	<i>Lingual Surface</i>	
	0 - Normal sound surface	6475
	1 - Caries	125
	2 - Filled	4698
	3 - 1 caries + 1 filled	8
	4 - Recurrent disease	25
	5 - Caries + recurrent	0
	6 - Recurrent + filled	4
	7 - Missing due to disease (extracted)	3681
	8 - Missing due to non-disease (trauma)	97
	9 - Excluded surface (present in mouth)	19
111	<i>Buccal Surface</i>	
	0 - Normal sound surface	9409
	1 - Caries	66
	2 - Filled	1844
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	16
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	3681
	8 - Missing due to non-disease (trauma)	97
	9 - Excluded surface (present in mouth)	19

NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
112	<i>Mesial Surface</i> 0 - Normal sound surface 1 - Caries 2 - Filled 3 - 1 caries + 1 filled 4 - Recurrent disease 5 - Caries + recurrent 6 - Recurrent + filled 7 - Missing due to disease (extracted) 8 - Missing due to non-disease (trauma) 9 - Excluded surface (present in mouth)	 6238 112 4937 0 47 0 1 3681 97 19
113	<i>Distal Surface</i> 0 - Normal sound surface 1 - Caries 2 - Filled 3 - 1 caries + 1 filled 4 - Recurrent disease 5 - Caries + recurrent 6 - Recurrent + filled 7 - Missing due to disease (extracted) 8 - Missing due to non-disease (trauma) 9 - Excluded surface (present in mouth)	 7680 76 3550 2 26 0 1 3681 97 19
114-118	Upper Right 2nd Molar	
114	<i>Occlusal Surface</i> 0 - Normal sound surface 1 - Caries 2 - Filled 3 - 1 caries + 1 filled 4 - Recurrent disease 5 - Caries + recurrent 6 - Recurrent + filled 7 - Missing due to disease (extracted) 8 - Missing due to non-disease (trauma) 9 - Excluded surface (present in mouth)	 2988 524 8297 29 47 1 11 3116 99 20

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132**

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
115	<i>Lingual Surface</i> 0 - Normal sound surface 1 - Caries 2 - Filled 3 - 1 caries + 1 filled 4 - Recurrent disease 5 - Caries + recurrent 6 - Recurrent + filled 7 - Missing due to disease (extracted) 8 - Missing due to non-disease (trauma) 9 - Excluded surface (present in mouth)	9115 127 2638 3 13 0 1 3116 99 20
116	<i>Buccal Surface</i> 0 - Normal sound surface 1 - Caries 2 - Filled 3 - 1 caries + 1 filled 4 - Recurrent disease 5 - Caries + recurrent 6 - Recurrent + filled 7 - Missing due to disease (extracted) 8 - Missing due to non-disease (trauma) 9 - Excluded surface (present in mouth)	9891 123 1860 1 21 0 1 3116 99 20
117	<i>Mesial Surface</i> 0 - Normal sound surface 1 - Caries 2 - Filled 3 - 1 caries + 1 filled 4 - Recurrent disease 5 - Caries + recurrent 6 - Recurrent + filled 7 - Missing due to disease (extracted) 8 - Missing due to non-disease (trauma) 9 - Excluded surface (present in mouth)	8928 94 2851 0 24 0 0 3116 99 20

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE**

NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
118	<i>Distal Surface</i>	
	0 - Normal sound surface	9706
	1 - Caries	109
	2 - Filled	2054
	3 - 1 caries + 1 filled	1
	4 - Recurrent disease	25
	5 - Caries + recurrent	0
	6 - Recurrent + filled	2
	7 - Missing due to disease (extracted)	3116
	8 - Missing due to non-disease (trauma)	99
	9 - Excluded surface (present in mouth)	20
	LOWER LEFT QUADRANT	
119-123	Lower Left Central Incisor	
119	Blank - (data user work area)	15132
120	<i>Lingual Surface</i>	
	0 - Normal sound surface	13684
	1 - Caries	8
	2 - Filled	178
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	1
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1073
	8 - Missing due to non-disease (trauma)	158
	9 - Excluded surface (present in mouth)	30
121	<i>Buccal Surface</i>	
	0 - Normal sound surface	13703
	1 - Caries	11
	2 - Filled	155
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	2
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1073
	8 - Missing due to non-disease (trauma)	158
	9 - Excluded surface (present in mouth)	30

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE**

NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
122	<i>Mesial Surface</i>	
	0 - Normal sound surface	13482
	1 - Caries	36
	2 - Filled	349
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	4
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1073
	8 - Missing due to non-disease (trauma)	158
	9 - Excluded surface (present in mouth)	30
123	<i>Distal Surface</i>	
	0 - Normal sound surface	13465
	1 - Caries	42
	2 - Filled	352
	3 - 1 caries + 1 filled	1
	4 - Recurrent disease	10
	5 - Caries + recurrent	1
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1073
	8 - Missing due to non-disease (trauma)	158
	9 - Excluded surface (present in mouth)	30
124-128	Lower Left Lateral Incisor	
124	Blank - (data user work area)	15132
125	<i>Lingual Surface</i>	
	0 - Normal sound surface	13801
	1 - Caries	13
	2 - Filled	183
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	2
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	988
	8 - Missing due to non-disease (trauma)	130
	9 - Excluded surface (present in mouth)	15

NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
126	<i>Buccal Surface</i> 0 - Normal sound surface 1 - Caries 2 - Filled 3 - 1 caries + 1 filled 4 - Recurrent disease 5 - Caries + recurrent 6 - Recurrent + filled 7 - Missing due to disease (extracted) 8 - Missing due to non-disease (trauma) 9 - Excluded surface (present in mouth)	13782 18 196 0 2 0 1 988 130 15
127	<i>Mesial Surface</i> 0 - Normal sound surface 1 - Caries 2 - Filled 3 - 1 caries + 1 filled 4 - Recurrent disease 5 - Caries + recurrent 6 - Recurrent + filled 7 - Missing due to disease (extracted) 8 - Missing due to non-disease (trauma) 9 - Excluded surface (present in mouth)	13556 42 399 0 2 0 0 988 130 15
128	<i>Distal Surface</i> 0 - Normal sound surface 1 - Caries 2 - Filled 3 - 1 caries + 1 filled 4 - Recurrent disease 5 - Caries + recurrent 6 - Recurrent + filled 7 - Missing due to disease (extracted) 8 - Missing due to non-disease (trauma) 9 - Excluded surface (present in mouth)	13602 56 332 0 9 0 0 988 130 15
129-133	Lower Left Cuspid	
129	Blank - (data user work area)	15132

NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
130	<i>Lingual Surface</i>	
	0 - Normal sound surface	13786
	1 - Caries	20
	2 - Filled	386
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	2
	5 - Caries + recurrent	0
	6 - Recurrent + filled	1
	7 - Missing due to disease (extracted)	820
	8 - Missing due to non-disease (trauma)	109
	9 - Excluded surface (present in mouth)	8
131	<i>Buccal Surface</i>	
	0 - Normal sound surface	13609
	1 - Caries	62
	2 - Filled	514
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	8
	5 - Caries + recurrent	0
	6 - Recurrent + filled	2
	7 - Missing due to disease (extracted)	820
	8 - Missing due to non-disease (trauma)	109
	9 - Excluded surface (present in mouth)	8
132	<i>Mesial Surface</i>	
	0 - Normal sound surface	13777
	1 - Caries	45
	2 - Filled	371
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	1
	5 - Caries + recurrent	1
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	820
	8 - Missing due to non-disease (trauma)	109
	9 - Excluded surface (present in mouth)	8

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE**

NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
133	<i>Distal Surface</i>	
	0 - Normal sound surface	13565
	1 - Caries	47
	2 - Filled	577
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	6
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	820
	8 - Missing due to non-disease (trauma)	109
	9 - Excluded surface (present in mouth)	8
134-138	Lower Left 1st Bicuspid	
134	<i>Occlusal Surface</i>	
	0 - Normal sound surface	9626
	1 - Caries	106
	2 - Filled	3279
	3 - 1 caries + 1 filled	1
	4 - Recurrent disease	13
	5 - Caries + recurrent	1
	6 - Recurrent + filled	2
	7 - Missing due to disease (extracted)	1370
	8 - Missing due to non-disease (trauma)	728
	9 - Excluded surface (present in mouth)	6
135	<i>Lingual Surface</i>	
	0 - Normal sound surface	12421
	1 - Caries	31
	2 - Filled	575
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	1
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1370
	8 - Missing due to non-disease (trauma)	728
	9 - Excluded surface (present in mouth)	6

NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
136	<i>Buccal Surface</i>	
	0 - Normal sound surface	12131
	1 - Caries	68
	2 - Filled	818
	3 - 1 caries + 1 filled	2
	4 - Recurrent disease	8
	5 - Caries + recurrent	0
	6 - Recurrent + filled	1
	7 - Missing due to disease (extracted)	1370
	8 - Missing due to non-disease (trauma)	728
	9 - Excluded surface (present in mouth)	6
137	<i>Mesial Surface</i>	
	0 - Normal sound surface	12086
	1 - Caries	38
	2 - Filled	899
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	5
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1370
	8 - Missing due to non-disease (trauma)	728
	9 - Excluded surface (present in mouth)	6
138	<i>Distal Surface</i>	
	0 - Normal sound surface	10622
	1 - Caries	81
	2 - Filled	2299
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	25
	5 - Caries + recurrent	0
	6 - Recurrent + filled	1
	7 - Missing due to disease (extracted)	1370
	8 - Missing due to non-disease (trauma)	728
	9 - Excluded surface (present in mouth)	6

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE**

NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
139-143	Lower Left 2nd Bicuspid	
139	<i>Occlusal Surface</i>	
	0 - Normal sound surface	6543
	1 - Caries	181
	2 - Filled	5841
	3 - 1 caries + 1 filled	2
	4 - Recurrent disease	30
	5 - Caries + recurrent	0
	6 - Recurrent + filled	3
	7 - Missing due to disease (extracted)	2309
	8 - Missing due to non-disease (trauma)	218
	9 - Excluded surface (present in mouth)	5
140	<i>Lingual Surface</i>	
	0 - Normal sound surface	11382
	1 - Caries	56
	2 - Filled	1155
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	7
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	2309
	8 - Missing due to non-disease (trauma)	218
	9 - Excluded surface (present in mouth)	5
141	<i>Buccal Surface</i>	
	0 - Normal sound surface	11223
	1 - Caries	75
	2 - Filled	1296
	3 - 1 caries + 1 filled	1
	4 - Recurrent disease	4
	5 - Caries + recurrent	0
	6 - Recurrent + filled	1
	7 - Missing due to disease (extracted)	2309
	8 - Missing due to non-disease (trauma)	218
	9 - Excluded surface (present in mouth)	5

NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
142	<i>Mesial Surface</i>	
	0 - Normal sound surface	10201
	1 - Caries	63
	2 - Filled	2325
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	11
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	2309
	8 - Missing due to non-disease (trauma)	218
	9 - Excluded surface (present in mouth)	5
143	<i>Distal Surface</i>	
	0 - Normal sound surface	8217
	1 - Caries	128
	2 - Filled	4215
	3 - 1 caries + 1 filled	2
	4 - Recurrent disease	37
	5 - Caries + recurrent	0
	6 - Recurrent + filled	1
	7 - Missing due to disease (extracted)	2309
	8 - Missing due to non-disease (trauma)	218
	9 - Excluded surface (present in mouth)	5
144-148	Lower Left 1st Molar	
144	<i>Occlusal Surface</i>	
	0 - Normal sound surface	1652
	1 - Caries	301
	2 - Filled	7916
	3 - 1 caries + 1 filled	6
	4 - Recurrent disease	74
	5 - Caries + recurrent	0
	6 - Recurrent + filled	13
	7 - Missing due to disease (extracted)	5058
	8 - Missing due to non-disease (trauma)	103
	9 - Excluded surface (present in mouth)	9

NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
145	<i>Lingual Surface</i> 0 - Normal sound surface 1 - Caries 2 - Filled 3 - 1 caries + 1 filled 4 - Recurrent disease 5 - Caries + recurrent 6 - Recurrent + filled 7 - Missing due to disease (extracted) 8 - Missing due to non-disease (trauma) 9 - Excluded surface (present in mouth)	 7328 87 2511 0 36 0 0 5058 103 9
146	<i>Buccal Surface</i> 0 - Normal sound surface 1 - Caries 2 - Filled 3 - 1 caries + 1 filled 4 - Recurrent disease 5 - Caries + recurrent 6 - Recurrent + filled 7 - Missing due to disease (extracted) 8 - Missing due to non-disease (trauma) 9 - Excluded surface (present in mouth)	 4999 175 4723 17 40 0 8 5058 103 9
147	<i>Mesial Surface</i> 0 - Normal sound surface 1 - Caries 2 - Filled 3 - 1 caries + 1 filled 4 - Recurrent disease 5 - Caries + recurrent 6 - Recurrent + filled 7 - Missing due to disease (extracted) 8 - Missing due to non-disease (trauma) 9 - Excluded surface (present in mouth)	 5622 83 4235 1 20 0 1 5058 103 9

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
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NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
148	<i>Distal Surface</i>	
	0 - Normal sound surface	5500
	1 - Caries	100
	2 - Filled	4325
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	34
	5 - Caries + recurrent	0
	6 - Recurrent + filled	3
	7 - Missing due to disease (extracted)	5058
	8 - Missing due to non-disease (trauma)	103
	9 - Excluded surface (present in mouth)	9
149-153	Lower Left 2nd Molar	
149	<i>Occlusal Surface</i>	
	0 - Normal sound surface	2211
	1 - Caries	533
	2 - Filled	8511
	3 - 1 caries + 1 filled	8
	4 - Recurrent disease	80
	5 - Caries + recurrent	0
	6 - Recurrent + filled	6
	7 - Missing due to disease (extracted)	3679
	8 - Missing due to non-disease (trauma)	101
	9 - Excluded surface (present in mouth)	3
150	<i>Lingual Surface</i>	
	0 - Normal sound surface	9346
	1 - Caries	77
	2 - Filled	1897
	3 - 1 caries + 1 filled	1
	4 - Recurrent disease	26
	5 - Caries + recurrent	0
	6 - Recurrent + filled	2
	7 - Missing due to disease (extracted)	3679
	8 - Missing due to non-disease (trauma)	101
	9 - Excluded surface (present in mouth)	3

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE**

NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
151	<i>Buccal Surface</i> 0 - Normal sound surface 1 - Caries 2 - Filled 3 - 1 caries + 1 filled 4 - Recurrent disease 5 - Caries + recurrent 6 - Recurrent + filled 7 - Missing due to disease (extracted) 8 - Missing due to non-disease (trauma) 9 - Excluded surface (present in mouth)	 7636 245 3422 7 36 2 1 3679 101 3
152	<i>Mesial Surface</i> 0 - Normal sound surface 1 - Caries 2 - Filled 3 - 1 caries + 1 filled 4 - Recurrent disease 5 - Caries + recurrent 6 - Recurrent + filled 7 - Missing due to disease (extracted) 8 - Missing due to non-disease (trauma) 9 - Excluded surface (present in mouth)	 7653 78 3588 0 28 0 2 3679 101 3
153	<i>Distal Surface</i> 0 - Normal sound surface 1 - Caries 2 - Filled 3 - 1 caries + 1 filled 4 - Recurrent disease 5 - Caries + recurrent 6 - Recurrent + filled 7 - Missing due to disease (extracted) 8 - Missing due to non-disease (trauma) 9 - Excluded surface (present in mouth)	 8937 81 2303 0 27 0 1 3679 101 3
154-158	LOWER RIGHT QUADRANT Lower Right Central Incisor	
154	Blank - (data user work area)	15132

NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
155	<i>Lingual Surface</i>	
	0 - Normal sound surface	13657
	1 - Caries	5
	2 - Filled	165
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	1
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1092
	8 - Missing due to non-disease (trauma)	180
	9 - Excluded surface (present in mouth)	32
156	<i>Buccal Surface</i>	
	0 - Normal sound surface	13688
	1 - Caries	7
	2 - Filled	132
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	1
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1092
	8 - Missing due to non-disease (trauma)	180
	9 - Excluded surface (present in mouth)	32
157	<i>Mesial Surface</i>	
	0 - Normal sound surface	13475
	1 - Caries	31
	2 - Filled	319
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	3
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1092
	8 - Missing due to non-disease (trauma)	180
	9 - Excluded surface (present in mouth)	32

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
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FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
158	<i>Distal Surface</i> 0 - Normal sound surface 1 - Caries 2 - Filled 3 - 1 caries + 1 filled 4 - Recurrent disease 5 - Caries + recurrent 6 - Recurrent + filled 7 - Missing due to disease (extracted) 8 - Missing due to non-disease (trauma) 9 - Excluded surface (present in mouth)	13394 45 385 0 4 0 0 1092 180 32
159-163	Lower Right Lateral Incisor	
159	Blank - (data user work area)	15132
160	<i>Lingual Surface</i> 0 - Normal sound surface 1 - Caries 2 - Filled 3 - 1 caries + 1 filled 4 - Recurrent disease 5 - Caries + recurrent 6 - Recurrent + filled 7 - Missing due to disease (extracted) 8 - Missing due to non-disease (trauma) 9 - Excluded surface (present in mouth)	13776 16 184 0 2 0 0 998 134 22
161	<i>Buccal Surface</i> 0 - Normal sound surface 1 - Caries 2 - Filled 3 - 1 caries + 1 filled 4 - Recurrent disease 5 - Caries + recurrent 6 - Recurrent + filled 7 - Missing due to disease (extracted) 8 - Missing due to non-disease (trauma) 9 - Excluded surface (present in mouth)	13747 21 204 1 5 0 0 998 134 22

NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
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NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
162	<i>Mesial Surface</i>	
	0 - Normal sound surface	13559
	1 - Caries	32
	2 - Filled	378
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	9
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	998
	8 - Missing due to non-disease (trauma)	134
	9 - Excluded surface (present in mouth)	22
163	<i>Distal Surface</i>	
	0 - Normal sound surface	13483
	1 - Caries	77
	2 - Filled	403
	3 - 1 caries + 1 filled	1
	4 - Recurrent disease	13
	5 - Caries + recurrent	0
	6 - Recurrent + filled	1
	7 - Missing due to disease (extracted)	998
	8 - Missing due to non-disease (trauma)	134
	9 - Excluded surface (present in mouth)	22
164-168	Lower Right Cuspid	
164	Blank - (data user work area)	15132
165	<i>Lingual Surface</i>	
	0 - Normal sound surface	13734
	1 - Caries	21
	2 - Filled	396
	3 - 1 caries + 1 filled	1
	4 - Recurrent disease	3
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	842
	8 - Missing due to non-disease (trauma)	120
	9 - Excluded surface (present in mouth)	15

NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
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NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
166	<i>Buccal Surface</i>	
	0 - Normal sound surface	13514
	1 - Caries	57
	2 - Filled	568
	3 - 1 caries + 1 filled	4
	4 - Recurrent disease	11
	5 - Caries + recurrent	0
	6 - Recurrent + filled	1
	7 - Missing due to disease (extracted)	842
	8 - Missing due to non-disease (trauma)	120
	9 - Excluded surface (present in mouth)	15
167	<i>Mesial Surface</i>	
	0 - Normal sound surface	13707
	1 - Caries	50
	2 - Filled	390
	3 - 1 caries + 1 filled	1
	4 - Recurrent disease	7
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	842
	8 - Missing due to non-disease (trauma)	120
	9 - Excluded surface (present in mouth)	15
168	<i>Distal Surface</i>	
	0 - Normal sound surface	13493
	1 - Caries	63
	2 - Filled	592
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	7
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	842
	8 - Missing due to non-disease (trauma)	120
	9 - Excluded surface (present in mouth)	15

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
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NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
169-173	Lower Right 1st Bicuspid	
169	<i>Occlusal Surface</i>	
	0 - Normal sound surface	9516
	1 - Caries	95
	2 - Filled	3358
	3 - 1 caries + 1 filled	3
	4 - Recurrent disease	17
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1398
	8 - Missing due to non-disease (trauma)	740
	9 - Excluded surface (present in mouth)	5
170	<i>Lingual Surface</i>	
	0 - Normal sound surface	12335
	1 - Caries	27
	2 - Filled	626
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	1
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1398
	8 - Missing due to non-disease (trauma)	740
	9 - Excluded surface (present in mouth)	5
171	<i>Buccal Surface</i>	
	0 - Normal sound surface	12068
	1 - Caries	67
	2 - Filled	846
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	6
	5 - Caries + recurrent	0
	6 - Recurrent + filled	2
	7 - Missing due to disease (extracted)	1398
	8 - Missing due to non-disease (trauma)	740
	9 - Excluded surface (present in mouth)	5

NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
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NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
172	<i>Mesial Surface</i>	
	0 - Normal sound surface	11933
	1 - Caries	47
	2 - Filled	999
	3 - 1 caries + 1 filled	1
	4 - Recurrent disease	9
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1398
	8 - Missing due to non-disease (trauma)	740
	9 - Excluded surface (present in mouth)	5
173	<i>Distal Surface</i>	
	0 - Normal sound surface	10473
	1 - Caries	83
	2 - Filled	2407
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	25
	5 - Caries + recurrent	0
	6 - Recurrent + filled	1
	7 - Missing due to disease (extracted)	1398
	8 - Missing due to non-disease (trauma)	740
	9 - Excluded surface (present in mouth)	5
174-178	Lower Right 2nd Bicuspid	
174	<i>Occlusal Surface</i>	
	0 - Normal sound surface	6445
	1 - Caries	193
	2 - Filled	5929
	3 - 1 caries + 1 filled	5
	4 - Recurrent disease	23
	5 - Caries + recurrent	1
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	2308
	8 - Missing due to non-disease (trauma)	220
	9 - Excluded surface (present in mouth)	8

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132**

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
175	<i>Lingual Surface</i> 0 - Normal sound surface 1 - Caries 2 - Filled 3 - 1 caries + 1 filled 4 - Recurrent disease 5 - Caries + recurrent 6 - Recurrent + filled 7 - Missing due to disease (extracted) 8 - Missing due to non-disease (trauma) 9 - Excluded surface (present in mouth)	11376 57 1155 0 7 0 1 2308 220 8
176	<i>Buccal Surface</i> 0 - Normal sound surface 1 - Caries 2 - Filled 3 - 1 caries + 1 filled 4 - Recurrent disease 5 - Caries + recurrent 6 - Recurrent + filled 7 - Missing due to disease (extracted) 8 - Missing due to non-disease (trauma) 9 - Excluded surface (present in mouth)	11234 84 1266 2 7 1 2 2308 220 8
177	<i>Mesial Surface</i> 0 - Normal sound surface 1 - Caries 2 - Filled 3 - 1 caries + 1 filled 4 - Recurrent disease 5 - Caries + recurrent 6 - Recurrent + filled 7 - Missing due to disease (extracted) 8 - Missing due to non-disease (trauma) 9 - Excluded surface (present in mouth)	10023 77 2481 0 15 0 0 2308 220 8

NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
178	<i>Distal Surface</i> 0 - Normal sound surface 1 - Caries 2 - Filled 3 - 1 caries + 1 filled 4 - Recurrent disease 5 - Caries + recurrent 6 - Recurrent + filled 7 - Missing due to disease (extracted) 8 - Missing due to non-disease (trauma) 9 - Excluded surface (present in mouth)	8111 119 4310 0 54 0 2 2308 220 8
179-183	Lower Right 1st Molar	
179	<i>Occlusal Surface</i> 0 - Normal sound surface 1 - Caries 2 - Filled 3 - 1 caries + 1 filled 4 - Recurrent disease 5 - Caries + recurrent 6 - Recurrent + filled 7 - Missing due to disease (extracted) 8 - Missing due to non-disease (trauma) 9 - Excluded surface (present in mouth)	1755 275 7998 8 83 1 6 4902 99 5
180	<i>Lingual Surface</i> 0 - Normal sound surface 1 - Caries 2 - Filled 3 - 1 caries + 1 filled 4 - Recurrent disease 5 - Caries + recurrent 6 - Recurrent + filled 7 - Missing due to disease (extracted) 8 - Missing due to non-disease (trauma) 9 - Excluded surface (present in mouth)	7618 79 2397 1 29 0 2 4902 99 5

NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
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NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
181	<i>Buccal Surface</i>	
	0 - Normal sound surface	5033
	1 - Caries	176
	2 - Filled	4877
	3 - 1 caries + 1 filled	9
	4 - Recurrent disease	22
	5 - Caries + recurrent	2
	6 - Recurrent + filled	7
	7 - Missing due to disease (extracted)	4902
	8 - Missing due to non-disease (trauma)	99
	9 - Excluded surface (present in mouth)	5
182	<i>Mesial Surface</i>	
	0 - Normal sound surface	5622
	1 - Caries	89
	2 - Filled	4390
	3 - 1 caries + 1 filled	1
	4 - Recurrent disease	24
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	4902
	8 - Missing due to non-disease (trauma)	99
	9 - Excluded surface (present in mouth)	5
183	<i>Distal Surface</i>	
	0 - Normal sound surface	5763
	1 - Caries	96
	2 - Filled	4228
	3 - 1 caries + 1 filled	1
	4 - Recurrent disease	36
	5 - Caries + recurrent	0
	6 - Recurrent + filled	2
	7 - Missing due to disease (extracted)	4902
	8 - Missing due to non-disease (trauma)	99
	9 - Excluded surface (present in mouth)	5

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
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NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
184-188	Lower Right 2nd Molar	
184	<i>Occlusal Surface</i>	
	0 - Normal sound surface	2244
	1 - Caries	483
	2 - Filled	8688
	3 - 1 caries + 1 filled	7
	4 - Recurrent disease	57
	5 - Caries + recurrent	0
	6 - Recurrent + filled	5
	7 - Missing due to disease (extracted)	3545
	8 - Missing due to non-disease (trauma)	94
	9 - Excluded surface (present in mouth)	9
185	<i>Lingual Surface</i>	
	0 - Normal sound surface	9530
	1 - Caries	92
	2 - Filled	1835
	3 - 1 caries + 1 filled	1
	4 - Recurrent disease	24
	5 - Caries + recurrent	0
	6 - Recurrent + filled	2
	7 - Missing due to disease (extracted)	3545
	8 - Missing due to non-disease (trauma)	94
	9 - Excluded surface (present in mouth)	9
186	<i>Buccal Surface</i>	
	0 - Normal sound surface	7773
	1 - Caries	211
	2 - Filled	3445
	3 - 1 caries + 1 filled	9
	4 - Recurrent disease	40
	5 - Caries + recurrent	0
	6 - Recurrent + filled	6
	7 - Missing due to disease (extracted)	3545
	8 - Missing due to non-disease (trauma)	94
	9 - Excluded surface (present in mouth)	9

NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
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FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
187	<i>Mesial Surface</i>	
	0 - Normal sound surface	7716
	1 - Caries	81
	2 - Filled	3655
	3 - 1 caries + 1 filled	1
	4 - Recurrent disease	27
	5 - Caries + recurrent	1
	6 - Recurrent + filled	3
	7 - Missing due to disease (extracted)	3545
	8 - Missing due to non-disease (trauma)	94
	9 - Excluded surface (present in mouth)	9
188	<i>Distal Surface</i>	
	0 - Normal sound surface	9151
	1 - Caries	78
	2 - Filled	2219
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	33
	5 - Caries + recurrent	0
	6 - Recurrent + filled	3
	7 - Missing due to disease (extracted)	3545
	8 - Missing due to non-disease (trauma)	94
	9 - Excluded surface (present in mouth)	9

ROOT CARIES ASSESSMENT
189-300

NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
	ROOT CARIES ASSESSMENT	
	UPPER LEFT QUADRANT	
189-192	Upper Left Central Incisor—Root	
189	<i>Lingual Surface</i>	
	0 - Normal sound surface	12950
	1 - Caries	19
	2 - Filled	5
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	0
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1857
	8 - Missing due to non-disease (trauma)	247
	9 - Excluded surface (present in mouth)	54
190	<i>Buccal Surface</i>	
	0 - Normal sound surface	12811
	1 - Caries	65
	2 - Filled	91
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	7
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1857
	8 - Missing due to non-disease (trauma)	247
	9 - Excluded surface (present in mouth)	54
191	<i>Mesial Surface</i>	
	0 - Normal sound surface	12934
	1 - Caries	27
	2 - Filled	11
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	2
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1857
	8 - Missing due to non-disease (trauma)	247
	9 - Excluded surface (present in mouth)	54

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE**

NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
192	<i>Distal Surface</i>	
	0 - Normal sound surface	12912
	1 - Caries	40
	2 - Filled	18
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	4
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1857
	8 - Missing due to non-disease (trauma)	247
	9 - Excluded surface (present in mouth)	54
193-196	Upper Left Lateral Incisor—Root	
193	<i>Lingual Surface</i>	
	0 - Normal sound surface	12724
	1 - Caries	27
	2 - Filled	9
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	1
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1968
	8 - Missing due to non-disease (trauma)	365
	9 - Excluded surface (present in mouth)	38
194	<i>Buccal Surface</i>	
	0 - Normal sound surface	12605
	1 - Caries	66
	2 - Filled	87
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	3
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1968
	8 - Missing due to non-disease (trauma)	365
	9 - Excluded surface (present in mouth)	38

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132**

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
195	<i>Mesial Surface</i>	
	0 - Normal sound surface	12678
	1 - Caries	59
	2 - Filled	23
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	1
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1968
	8 - Missing due to non-disease (trauma)	365
	9 - Excluded surface (present in mouth)	38
196	<i>Distal Surface</i>	
	0 - Normal sound surface	12707
	1 - Caries	39
	2 - Filled	12
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	3
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1968
	8 - Missing due to non-disease (trauma)	365
	9 - Excluded surface (present in mouth)	38

NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
197-200	Upper Left Cuspid—Root	
197	<i>Lingual Surface</i>	
	0 - Normal sound surface	13179
	1 - Caries	25
	2 - Filled	6
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	3
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1667
	8 - Missing due to non-disease (trauma)	223
	9 - Excluded surface (present in mouth)	29
198	<i>Buccal Surface</i>	
	0 - Normal sound surface	12843
	1 - Caries	116
	2 - Filled	233
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	21
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1667
	8 - Missing due to non-disease (trauma)	223
	9 - Excluded surface (present in mouth)	29
199	<i>Mesial Surface</i>	
	0 - Normal sound surface	13141
	1 - Caries	52
	2 - Filled	19
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	1
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1667
	8 - Missing due to non-disease (trauma)	223
	9 - Excluded surface (present in mouth)	29

NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
200	<i>Distal Surface</i>	
	0 - Normal sound surface	13135
	1 - Caries	53
	2 - Filled	17
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	8
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1667
	8 - Missing due to non-disease (trauma)	223
	9 - Excluded surface (present in mouth)	29
201-204	Upper Left 1st Bicuspid—Root	
201	<i>Lingual Surface</i>	
	0 - Normal sound surface	11639
	1 - Caries	48
	2 - Filled	8
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	1
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	2545
	8 - Missing due to non-disease (trauma)	859
	9 - Excluded surface (present in mouth)	32
202	<i>Buccal Surface</i>	
	0 - Normal sound surface	11391
	1 - Caries	100
	2 - Filled	195
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	10
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	2545
	8 - Missing due to non-disease (trauma)	859
	9 - Excluded surface (present in mouth)	32

NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
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NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
203	<i>Mesial Surface</i>	
	0 - Normal sound surface	11627
	1 - Caries	55
	2 - Filled	11
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	3
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	2545
	8 - Missing due to non-disease (trauma)	859
	9 - Excluded surface (present in mouth)	32
204	<i>Distal Surface</i>	
	0 - Normal sound surface	11609
	1 - Caries	69
	2 - Filled	13
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	5
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	2545
	8 - Missing due to non-disease (trauma)	859
	9 - Excluded surface (present in mouth)	32
205-208	Upper Left 2nd Bicuspid—Root	
205	<i>Lingual Surface</i>	
	0 - Normal sound surface	11940
	1 - Caries	54
	2 - Filled	17
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	0
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	2878
	8 - Missing due to non-disease (trauma)	203
	9 - Excluded surface (present in mouth)	40

NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
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NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
206	<i>Buccal Surface</i>	
	0 - Normal sound surface	11850
	1 - Caries	70
	2 - Filled	90
	3 - 1 caries + 1 filled	1
	4 - Recurrent disease	0
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	2878
	8 - Missing due to non-disease (trauma)	203
	9 - Excluded surface (present in mouth)	40
207	<i>Mesial Surface</i>	
	0 - Normal sound surface	11935
	1 - Caries	65
	2 - Filled	11
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	0
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	2878
	8 - Missing due to non-disease (trauma)	203
	9 - Excluded surface (present in mouth)	40
208	<i>Distal Surface</i>	
	0 - Normal sound surface	11914
	1 - Caries	70
	2 - Filled	20
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	7
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	2878
	8 - Missing due to non-disease (trauma)	203
	9 - Excluded surface (present in mouth)	40

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
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FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
209-212	Upper Left 1st Molar—Root	
209	<i>Lingual Surface</i>	
	0 - Normal sound surface	11217
	1 - Caries	85
	2 - Filled	82
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	6
	5 - Caries + recurrent	0
	6 - Recurrent + filled	1
	7 - Missing due to disease (extracted)	3607
	8 - Missing due to non-disease (trauma)	100
	9 - Excluded surface (present in mouth)	34
210	<i>Buccal Surface</i>	
	0 - Normal sound surface	11238
	1 - Caries	66
	2 - Filled	86
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	1
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	3607
	8 - Missing due to non-disease (trauma)	100
	9 - Excluded surface (present in mouth)	34
211	<i>Mesial Surface</i>	
	0 - Normal sound surface	11308
	1 - Caries	61
	2 - Filled	21
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	1
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	3607
	8 - Missing due to non-disease (trauma)	100
	9 - Excluded surface (present in mouth)	34

NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
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NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
212	<i>Distal Surface</i>	
	0 - Normal sound surface	11318
	1 - Caries	59
	2 - Filled	12
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	2
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	3607
	8 - Missing due to non-disease (trauma)	100
	9 - Excluded surface (present in mouth)	34
213-216	Upper Left 2nd Molar—Root	
213	<i>Lingual Surface</i>	
	0 - Normal sound surface	11712
	1 - Caries	50
	2 - Filled	49
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	4
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	3183
	8 - Missing due to non-disease (trauma)	100
	9 - Excluded surface (present in mouth)	34
214	<i>Buccal Surface</i>	
	0 - Normal sound surface	11633
	1 - Caries	71
	2 - Filled	107
	3 - 1 caries + 1 filled	1
	4 - Recurrent disease	3
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	3183
	8 - Missing due to non-disease (trauma)	100
	9 - Excluded surface (present in mouth)	34

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE**

NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
215	<i>Mesial Surface</i>	
	0 - Normal sound surface	11739
	1 - Caries	55
	2 - Filled	19
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	2
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	3183
	8 - Missing due to non-disease (trauma)	100
	9 - Excluded surface (present in mouth)	34
216	<i>Distal Surface</i>	
	0 - Normal sound surface	11753
	1 - Caries	48
	2 - Filled	14
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	0
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	3183
	8 - Missing due to non-disease (trauma)	100
	9 - Excluded surface (present in mouth)	34
UPPER RIGHT QUADRANT		
217-220	Upper Right Central Incisor—Root	
217	<i>Lingual Surface</i>	
	0 - Normal sound surface	12961
	1 - Caries	19
	2 - Filled	5
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	5
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1836
	8 - Missing due to non-disease (trauma)	249
	9 - Excluded surface (present in mouth)	57

NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS

PUBLIC USE FILE

NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
218	<i>Buccal Surface</i>	
	0 - Normal sound surface	12838
	1 - Caries	68
	2 - Filled	79
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	5
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1836
	8 - Missing due to non-disease (trauma)	249
	9 - Excluded surface (present in mouth)	57
219	<i>Mesial Surface</i>	
	0 - Normal sound surface	12942
	1 - Caries	35
	2 - Filled	10
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	3
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1836
	8 - Missing due to non-disease (trauma)	249
	9 - Excluded surface (present in mouth)	57
220	<i>Distal Surface</i>	
	0 - Normal sound surface	12906
	1 - Caries	52
	2 - Filled	27
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	5
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1836
	8 - Missing due to non-disease (trauma)	249
	9 - Excluded surface (present in mouth)	57

NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
221-224	Upper Right Lateral Incisor—Root	
221	<i>Lingual Surface</i>	
	0 - Normal sound surface	12722
	1 - Caries	21
	2 - Filled	4
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	2
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1966
	8 - Missing due to non-disease (trauma)	376
	9 - Excluded surface (present in mouth)	41
222	<i>Buccal Surface</i>	
	0 - Normal sound surface	12612
	1 - Caries	59
	2 - Filled	72
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	5
	5 - Caries + recurrent	0
	6 - Recurrent + filled	1
	7 - Missing due to disease (extracted)	1966
	8 - Missing due to non-disease (trauma)	376
	9 - Excluded surface (present in mouth)	41
223	<i>Mesial Surface</i>	
	0 - Normal sound surface	12676
	1 - Caries	49
	2 - Filled	22
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	2
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1966
	8 - Missing due to non-disease (trauma)	376
	9 - Excluded surface (present in mouth)	41

NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
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FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
224	<i>Distal Surface</i>	
	0 - Normal sound surface	12691
	1 - Caries	41
	2 - Filled	15
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	2
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1966
	8 - Missing due to non-disease (trauma)	376
	9 - Excluded surface (present in mouth)	41
225-228	Upper Right Cuspid—Root	
225	<i>Lingual Surface</i>	
	0 - Normal sound surface	13199
	1 - Caries	23
	2 - Filled	8
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	0
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1647
	8 - Missing due to non-disease (trauma)	224
	9 - Excluded surface (present in mouth)	31
226	<i>Buccal Surface</i>	
	0 - Normal sound surface	12911
	1 - Caries	106
	2 - Filled	194
	3 - 1 caries + 1 filled	2
	4 - Recurrent disease	17
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1647
	8 - Missing due to non-disease (trauma)	224
	9 - Excluded surface (present in mouth)	31

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
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NUMBER OF RECORDS = 15,132**

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
227	<i>Mesial Surface</i> 0 - Normal sound surface 1 - Caries 2 - Filled 3 - 1 caries + 1 filled 4 - Recurrent disease 5 - Caries + recurrent 6 - Recurrent + filled 7 - Missing due to disease (extracted) 8 - Missing due to non-disease (trauma) 9 - Excluded surface (present in mouth)	13159 51 19 0 1 0 0 1647 224 31
228	<i>Distal Surface</i> 0 - Normal sound surface 1 - Caries 2 - Filled 3 - 1 caries + 1 filled 4 - Recurrent disease 5 - Caries + recurrent 6 - Recurrent + filled 7 - Missing due to disease (extracted) 8 - Missing due to non-disease (trauma) 9 - Excluded surface (present in mouth)	13159 52 16 0 3 0 0 1647 224 31
229-232	Upper Right 1st Bicuspid—Root	
229	<i>Lingual Surface</i> 0 - Normal sound surface 1 - Caries 2 - Filled 3 - 1 caries + 1 filled 4 - Recurrent disease 5 - Caries + recurrent 6 - Recurrent + filled 7 - Missing due to disease (extracted) 8 - Missing due to non-disease (trauma) 9 - Excluded surface (present in mouth)	11692 40 14 0 1 0 0 2485 868 32

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE**

NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
230	<i>Buccal Surface</i>	
	0 - Normal sound surface	11415
	1 - Caries	84
	2 - Filled	236
	3 - 1 caries + 1 filled	2
	4 - Recurrent disease	10
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	2485
	8 - Missing due to non-disease (trauma)	868
	9 - Excluded surface (present in mouth)	32
231	<i>Mesial Surface</i>	
	0 - Normal sound surface	11688
	1 - Caries	44
	2 - Filled	14
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	1
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	2485
	8 - Missing due to non-disease (trauma)	868
	9 - Excluded surface (present in mouth)	32
232	<i>Distal Surface</i>	
	0 - Normal sound surface	11681
	1 - Caries	47
	2 - Filled	13
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	6
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	2485
	8 - Missing due to non-disease (trauma)	868
	9 - Excluded surface (present in mouth)	32

NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
233-236	Upper Right 2nd Bicuspid—Root	
233	<i>Lingual Surface</i>	
	0 - Normal sound surface	11878
	1 - Caries	51
	2 - Filled	22
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	0
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	2942
	8 - Missing due to non-disease (trauma)	201
	9 - Excluded surface (present in mouth)	38
234	<i>Buccal Surface</i>	
	0 - Normal sound surface	11791
	1 - Caries	72
	2 - Filled	84
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	4
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	2942
	8 - Missing due to non-disease (trauma)	201
	9 - Excluded surface (present in mouth)	38
235	<i>Mesial Surface</i>	
	0 - Normal sound surface	11879
	1 - Caries	61
	2 - Filled	11
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	0
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	2942
	8 - Missing due to non-disease (trauma)	201
	9 - Excluded surface (present in mouth)	38

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132**

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
236	<i>Distal Surface</i> 0 - Normal sound surface 1 - Caries 2 - Filled 3 - 1 caries + 1 filled 4 - Recurrent disease 5 - Caries + recurrent 6 - Recurrent + filled 7 - Missing due to disease (extracted) 8 - Missing due to non-disease (trauma) 9 - Excluded surface (present in mouth)	11872 62 15 0 2 0 0 2942 201 38
237-240	Upper Right 1st Molar—Root	
237	<i>Lingual Surface</i> 0 - Normal sound surface 1 - Caries 2 - Filled 3 - 1 caries + 1 filled 4 - Recurrent disease 5 - Caries + recurrent 6 - Recurrent + filled 7 - Missing due to disease (extracted) 8 - Missing due to non-disease (trauma) 9 - Excluded surface (present in mouth)	11131 88 92 0 4 0 0 3681 97 39
238	<i>Buccal Surface</i> 0 - Normal sound surface 1 - Caries 2 - Filled 3 - 1 caries + 1 filled 4 - Recurrent disease 5 - Caries + recurrent 6 - Recurrent + filled 7 - Missing due to disease (extracted) 8 - Missing due to non-disease (trauma) 9 - Excluded surface (present in mouth)	11176 53 83 0 3 0 0 3681 97 39

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE**

NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
239	<i>Mesial Surface</i> 0 - Normal sound surface 1 - Caries 2 - Filled 3 - 1 caries + 1 filled 4 - Recurrent disease 5 - Caries + recurrent 6 - Recurrent + filled 7 - Missing due to disease (extracted) 8 - Missing due to non-disease (trauma) 9 - Excluded surface (present in mouth)	11251 49 15 0 0 0 0 3681 97 39
240	<i>Distal Surface</i> 0 - Normal sound surface 1 - Caries 2 - Filled 3 - 1 caries + 1 filled 4 - Recurrent disease 5 - Caries + recurrent 6 - Recurrent + filled 7 - Missing due to disease (extracted) 8 - Missing due to non-disease (trauma) 9 - Excluded surface (present in mouth)	11257 43 13 0 2 0 0 3681 97 39
241-244	Upper Right 2nd Molar—Root	
241	<i>Lingual Surface</i> 0 - Normal sound surface 1 - Caries 2 - Filled 3 - 1 caries + 1 filled 4 - Recurrent disease 5 - Caries + recurrent 6 - Recurrent + filled 7 - Missing due to disease (extracted) 8 - Missing due to non-disease (trauma) 9 - Excluded surface (present in mouth)	11771 59 46 0 2 0 0 3116 99 39

NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
242	<i>Buccal Surface</i>	
	0 - Normal sound surface	11680
	1 - Caries	72
	2 - Filled	122
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	4
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	3116
	8 - Missing due to non-disease (trauma)	99
	9 - Excluded surface (present in mouth)	39
243	<i>Mesial Surface</i>	
	0 - Normal sound surface	11807
	1 - Caries	50
	2 - Filled	18
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	3
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	3116
	8 - Missing due to non-disease (trauma)	99
	9 - Excluded surface (present in mouth)	39
244	<i>Distal Surface</i>	
	0 - Normal sound surface	11815
	1 - Caries	48
	2 - Filled	14
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	1
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	3116
	8 - Missing due to non-disease (trauma)	99
	9 - Excluded surface (present in mouth)	39

NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
245-248	LOWER LEFT QUADRANT	
	Lower Left Central Incisor—Root	
	<i>Lingual Surface</i>	
245	0 - Normal sound surface	13878
	1 - Caries	3
	2 - Filled	0
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	0
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1073
	8 - Missing due to non-disease (trauma)	158
	9 - Excluded surface (present in mouth)	20
246	<i>Buccal Surface</i>	
	0 - Normal sound surface	13836
	1 - Caries	17
	2 - Filled	26
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	2
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1073
	8 - Missing due to non-disease (trauma)	158
	9 - Excluded surface (present in mouth)	20
247	<i>Mesial Surface</i>	
	0 - Normal sound surface	13873
	1 - Caries	6
	2 - Filled	2
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	0
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1073
	8 - Missing due to non-disease (trauma)	158
	9 - Excluded surface (present in mouth)	20

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132**

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
248	<i>Distal Surface</i>	
	0 - Normal sound surface	13874
	1 - Caries	3
	2 - Filled	4
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	0
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1073
	8 - Missing due to non-disease (trauma)	158
	9 - Excluded surface (present in mouth)	20
249-252	Lower Left Lateral Incisor—Root	
249	<i>Lingual Surface</i>	
	0 - Normal sound surface	13979
	1 - Caries	11
	2 - Filled	1
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	0
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	988
	8 - Missing due to non-disease (trauma)	130
	9 - Excluded surface (present in mouth)	23
250	<i>Buccal Surface</i>	
	0 - Normal sound surface	13927
	1 - Caries	21
	2 - Filled	41
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	2
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	988
	8 - Missing due to non-disease (trauma)	130
	9 - Excluded surface (present in mouth)	23

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE**

NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
251	<i>Mesial Surface</i>	
	0 - Normal sound surface	13981
	1 - Caries	8
	2 - Filled	2
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	0
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	988
	8 - Missing due to non-disease (trauma)	130
	9 - Excluded surface (present in mouth)	23
252	<i>Distal Surface</i>	
	0 - Normal sound surface	13976
	1 - Caries	11
	2 - Filled	3
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	1
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	988
	8 - Missing due to non-disease (trauma)	130
	9 - Excluded surface (present in mouth)	23
253-256	Lower Left Cuspid—Root	
253	<i>Lingual Surface</i>	
	0 - Normal sound surface	14165
	1 - Caries	10
	2 - Filled	5
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	3
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	820
	8 - Missing due to non-disease (trauma)	109
	9 - Excluded surface (present in mouth)	20

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE**

NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
254	<i>Buccal Surface</i>	
	0 - Normal sound surface	13884
	1 - Caries	82
	2 - Filled	198
	3 - 1 caries + 1 filled	1
	4 - Recurrent disease	18
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	820
	8 - Missing due to non-disease (trauma)	109
	9 - Excluded surface (present in mouth)	20
255	<i>Mesial Surface</i>	
	0 - Normal sound surface	14132
	1 - Caries	34
	2 - Filled	15
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	2
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	820
	8 - Missing due to non-disease (trauma)	109
	9 - Excluded surface (present in mouth)	20
256	<i>Distal Surface</i>	
	0 - Normal sound surface	14136
	1 - Caries	27
	2 - Filled	17
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	3
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	820
	8 - Missing due to non-disease (trauma)	109
	9 - Excluded surface (present in mouth)	20

NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
257-260	Lower Left 1st Bicuspid—Root	
257	<i>Lingual Surface</i>	
	0 - Normal sound surface	12991
	1 - Caries	19
	2 - Filled	5
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	0
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1370
	8 - Missing due to non-disease (trauma)	728
	9 - Excluded surface (present in mouth)	19
258	<i>Buccal Surface</i>	
	0 - Normal sound surface	12416
	1 - Caries	143
	2 - Filled	438
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	17
	5 - Caries + recurrent	1
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1370
	8 - Missing due to non-disease (trauma)	728
	9 - Excluded surface (present in mouth)	19
259	<i>Mesial Surface</i>	
	0 - Normal sound surface	12982
	1 - Caries	18
	2 - Filled	12
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	3
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1370
	8 - Missing due to non-disease (trauma)	728
	9 - Excluded surface (present in mouth)	19

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE**

NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
260	<i>Distal Surface</i>	
	0 - Normal sound surface	12951
	1 - Caries	33
	2 - Filled	30
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	1
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1370
	8 - Missing due to non-disease (trauma)	728
	9 - Excluded surface (present in mouth)	19
261-264	Lower Left 2nd Bicuspid—Root	
261	<i>Lingual Surface</i>	
	0 - Normal sound surface	12545
	1 - Caries	27
	2 - Filled	5
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	2
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	2309
	8 - Missing due to non-disease (trauma)	218
	9 - Excluded surface (present in mouth)	26
262	<i>Buccal Surface</i>	
	0 - Normal sound surface	12224
	1 - Caries	101
	2 - Filled	240
	3 - 1 caries + 1 filled	2
	4 - Recurrent disease	12
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	2309
	8 - Missing due to non-disease (trauma)	218
	9 - Excluded surface (present in mouth)	26

NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
263	<i>Mesial Surface</i>	
	0 - Normal sound surface	12535
	1 - Caries	34
	2 - Filled	9
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	1
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	2309
	8 - Missing due to non-disease (trauma)	218
	9 - Excluded surface (present in mouth)	26
264	<i>Distal Surface</i>	
	0 - Normal sound surface	12489
	1 - Caries	56
	2 - Filled	30
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	4
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	2309
	8 - Missing due to non-disease (trauma)	218
	9 - Excluded surface (present in mouth)	26
265-268	Lower Left 1st Molar	
265	<i>Lingual Surface</i>	
	0 - Normal sound surface	9867
	1 - Caries	47
	2 - Filled	28
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	0
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	5057
	8 - Missing due to non-disease (trauma)	103
	9 - Excluded surface (present in mouth)	30

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132**

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
266	<i>Buccal Surface</i>	
	0 - Normal sound surface	9647
	1 - Caries	79
	2 - Filled	209
	3 - 1 caries + 1 filled	3
	4 - Recurrent disease	3
	5 - Caries + recurrent	1
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	5057
	8 - Missing due to non-disease (trauma)	103
	9 - Excluded surface (present in mouth)	30
267	<i>Mesial Surface</i>	
	0 - Normal sound surface	9896
	1 - Caries	39
	2 - Filled	6
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	1
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	5057
	8 - Missing due to non-disease (trauma)	103
	9 - Excluded surface (present in mouth)	30
268	<i>Distal Surface</i>	
	0 - Normal sound surface	9890
	1 - Caries	45
	2 - Filled	5
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	2
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	5057
	8 - Missing due to non-disease (trauma)	103
	9 - Excluded surface (present in mouth)	30

NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
269-272	Lower Left 2nd Molar—Root	
269	<i>Lingual Surface</i>	
	0 - Normal sound surface	11263
	1 - Caries	49
	2 - Filled	20
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	2
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	3679
	8 - Missing due to non-disease (trauma)	101
	9 - Excluded surface (present in mouth)	18
270	<i>Buccal Surface</i>	
	0 - Normal sound surface	10990
	1 - Caries	107
	2 - Filled	222
	3 - 1 caries + 1 filled	2
	4 - Recurrent disease	13
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	3679
	8 - Missing due to non-disease (trauma)	101
	9 - Excluded surface (present in mouth)	18
271	<i>Mesial Surface</i>	
	0 - Normal sound surface	11275
	1 - Caries	39
	2 - Filled	17
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	3
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	3679
	8 - Missing due to non-disease (trauma)	101
	9 - Excluded surface (present in mouth)	18

NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
272	<i>Distal Surface</i>	
	0 - Normal sound surface	11282
	1 - Caries	40
	2 - Filled	11
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	1
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	3679
	8 - Missing due to non-disease (trauma)	101
	9 - Excluded surface (present in mouth)	18
	LOWER RIGHT QUADRANT	
273-276	Lower Right Central Incisor—Root	
273	<i>Lingual Surface</i>	
	0 - Normal sound surface	13836
	1 - Caries	4
	2 - Filled	1
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	0
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1092
	8 - Missing due to non-disease (trauma)	180
	9 - Excluded surface (present in mouth)	19
274	<i>Buccal Surface</i>	
	0 - Normal sound surface	13803
	1 - Caries	13
	2 - Filled	25
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	0
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1092
	8 - Missing due to non-disease (trauma)	180
	9 - Excluded surface (present in mouth)	19

NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
275	<i>Mesial Surface</i>	
	0 - Normal sound surface	13832
	1 - Caries	6
	2 - Filled	3
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	0
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1092
	8 - Missing due to non-disease (trauma)	180
	9 - Excluded surface (present in mouth)	19
276	<i>Distal Surface</i>	
	0 - Normal sound surface	13833
	1 - Caries	5
	2 - Filled	3
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	0
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1092
	8 - Missing due to non-disease (trauma)	180
	9 - Excluded surface (present in mouth)	19
277-280	Lower Right Lateral Incisor—Root	
277	<i>Lingual Surface</i>	
	0 - Normal sound surface	13975
	1 - Caries	5
	2 - Filled	0
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	0
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	998
	8 - Missing due to non-disease (trauma)	134
	9 - Excluded surface (present in mouth)	20

NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
278	<i>Buccal Surface</i>	
	0 - Normal sound surface	13917
	1 - Caries	29
	2 - Filled	29
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	5
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	998
	8 - Missing due to non-disease (trauma)	134
	9 - Excluded surface (present in mouth)	20
279	<i>Mesial Surface</i>	
	0 - Normal sound surface	13968
	1 - Caries	9
	2 - Filled	2
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	1
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	998
	8 - Missing due to non-disease (trauma)	134
	9 - Excluded surface (present in mouth)	20
280	<i>Distal Surface</i>	
	0 - Normal sound surface	13965
	1 - Caries	14
	2 - Filled	0
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	1
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	998
	8 - Missing due to non-disease (trauma)	134
	9 - Excluded surface (present in mouth)	20

NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
281-284	Lower Right Cuspid—Root	
281	<i>Lingual Surface</i>	
	0 - Normal sound surface	14131
	1 - Caries	17
	2 - Filled	3
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	0
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	842
	8 - Missing due to non-disease (trauma)	120
	9 - Excluded surface (present in mouth)	19
282	<i>Buccal Surface</i>	
	0 - Normal sound surface	13860
	1 - Caries	86
	2 - Filled	184
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	20
	5 - Caries + recurrent	0
	6 - Recurrent + filled	1
	7 - Missing due to disease (extracted)	842
	8 - Missing due to non-disease (trauma)	120
	9 - Excluded surface (present in mouth)	19
283	<i>Mesial Surface</i>	
	0 - Normal sound surface	14092
	1 - Caries	42
	2 - Filled	15
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	2
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	842
	8 - Missing due to non-disease (trauma)	120
	9 - Excluded surface (present in mouth)	19

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132**

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
284	<i>Distal Surface</i>	
	0 - Normal sound surface	14104
	1 - Caries	31
	2 - Filled	13
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	3
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	842
	8 - Missing due to non-disease (trauma)	120
	9 - Excluded surface (present in mouth)	19
285-288	Lower Right 1st Bicuspid—Root	
285	<i>Lingual Surface</i>	
	0 - Normal sound surface	12949
	1 - Caries	26
	2 - Filled	3
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	0
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1398
	8 - Missing due to non-disease (trauma)	740
	9 - Excluded surface (present in mouth)	16
286	<i>Buccal Surface</i>	
	0 - Normal sound surface	12389
	1 - Caries	129
	2 - Filled	432
	3 - 1 caries + 1 filled	2
	4 - Recurrent disease	26
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1398
	8 - Missing due to non-disease (trauma)	740
	9 - Excluded surface (present in mouth)	16

NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
287	<i>Mesial Surface</i>	
	0 - Normal sound surface	12916
	1 - Caries	36
	2 - Filled	25
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	1
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1398
	8 - Missing due to non-disease (trauma)	740
	9 - Excluded surface (present in mouth)	16
288	<i>Distal Surface</i>	
	0 - Normal sound surface	12908
	1 - Caries	44
	2 - Filled	24
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	2
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	1398
	8 - Missing due to non-disease (trauma)	740
	9 - Excluded surface (present in mouth)	16
289-292	Lower Right 2nd Bicuspid—Root	
289	<i>Lingual Surface</i>	
	0 - Normal sound surface	12534
	1 - Caries	36
	2 - Filled	6
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	0
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	2308
	8 - Missing due to non-disease (trauma)	220
	9 - Excluded surface (present in mouth)	28

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE**

NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
290	<i>Buccal Surface</i>	
	0 - Normal sound surface	12210
	1 - Caries	115
	2 - Filled	239
	3 - 1 caries + 1 filled	2
	4 - Recurrent disease	10
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	2308
	8 - Missing due to non-disease (trauma)	220
	9 - Excluded surface (present in mouth)	28
291	<i>Mesial Surface</i>	
	0 - Normal sound surface	12520
	1 - Caries	36
	2 - Filled	18
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	2
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	2308
	8 - Missing due to non-disease (trauma)	220
	9 - Excluded surface (present in mouth)	28
292	<i>Distal Surface</i>	
	0 - Normal sound surface	12496
	1 - Caries	50
	2 - Filled	29
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	1
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	2308
	8 - Missing due to non-disease (trauma)	220
	9 - Excluded surface (present in mouth)	28

NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
293-296	Lower Right 1st Molar—Root	
293	<i>Lingual Surface</i>	
	0 - Normal sound surface	10041
	1 - Caries	41
	2 - Filled	24
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	0
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	4902
	8 - Missing due to non-disease (trauma)	99
	9 - Excluded surface (present in mouth)	25
294	<i>Buccal Surface</i>	
	0 - Normal sound surface	9742
	1 - Caries	99
	2 - Filled	255
	3 - 1 caries + 1 filled	1
	4 - Recurrent disease	9
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	4902
	8 - Missing due to non-disease (trauma)	99
	9 - Excluded surface (present in mouth)	25
295	<i>Mesial Surface</i>	
	0 - Normal sound surface	10046
	1 - Caries	39
	2 - Filled	20
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	1
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	4902
	8 - Missing due to non-disease (trauma)	99
	9 - Excluded surface (present in mouth)	25

NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
296	<i>Distal Surface</i>	
	0 - Normal sound surface	10055
	1 - Caries	37
	2 - Filled	13
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	1
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	4902
	8 - Missing due to non-disease (trauma)	99
	9 - Excluded surface (present in mouth)	25
297-300	Lower Right 2nd Molar—Root	
297	<i>Lingual Surface</i>	
	0 - Normal sound surface	11388
	1 - Caries	49
	2 - Filled	27
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	2
	5 - Caries + recurrent	0
	6 - Recurrent + filled	1
	7 - Missing due to disease (extracted)	3545
	8 - Missing due to non-disease (trauma)	94
	9 - Excluded surface (present in mouth)	26
298	<i>Buccal Surface</i>	
	0 - Normal sound surface	11053
	1 - Caries	121
	2 - Filled	275
	3 - 1 caries + 1 filled	2
	4 - Recurrent disease	16
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	3545
	8 - Missing due to non-disease (trauma)	94
	9 - Excluded surface (present in mouth)	26

NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
299	<i>Mesial Surface</i>	
	0 - Normal sound surface	11400
	1 - Caries	42
	2 - Filled	22
	3 - 1 caries + 1 filled	1
	4 - Recurrent disease	2
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	3545
	8 - Missing due to non-disease (trauma)	94
	9 - Excluded surface (present in mouth)	26
300	<i>Distal Surface</i>	
	0 - Normal sound surface	11412
	1 - Caries	42
	2 - Filled	12
	3 - 1 caries + 1 filled	0
	4 - Recurrent disease	1
	5 - Caries + recurrent	0
	6 - Recurrent + filled	0
	7 - Missing due to disease (extracted)	3545
	8 - Missing due to non-disease (trauma)	94
	9 - Excluded surface (present in mouth)	26

CORONAL ASSESSMENT TOOTH CALLS
301-328

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132**

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
	CORONAL ASSESSMENT TOOTH CALLS	
	UPPER LEFT QUADRANT	
301	Upper Left Central Incisor Coronal Tooth Call	
	0 - Sound	8828
	1 - Caries	389
	2 - Filled	3540
	7 - Missing due to disease	1857
	8 - Missing no disease	247
	9 - Excluded	271
302	Upper Left Lateral Incisor Coronal Tooth Call	
	0 - Sound	8393
	1 - Caries	461
	2 - Filled	3846
	7 - Missing due to disease	1968
	8 - Missing no disease	365
	9 - Excluded	99
303	Upper Left Cuspid Coronal Tooth Call	
	0 - Sound	10096
	1 - Caries	312
	2 - Filled	2797
	7 - Missing due to disease	1667
	8 - Missing no disease	223
	9 - Excluded	37
304	Upper Left 1st Bicuspid Coronal Tooth Call	
	0 - Sound	6027
	1 - Caries	312
	2 - Filled	5368
	7 - Missing due to disease	2545
	8 - Missing no disease	859
	9 - Excluded	21
305	Upper Left 2nd Bicuspid Coronal Tooth Call	
	0 - Sound	5565
	1 - Caries	318
	2 - Filled	6149
	7 - Missing due to disease	2878
	8 - Missing no disease	203
	9 - Excluded	19

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132**

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
306	Upper Left 1st Molar Coronal Tooth Call 0 - Sound 1 - Caries 2 - Filled 7 - Missing due to disease 8 - Missing no disease 9 - Excluded	 1987 589 8833 3607 100 16
307	Upper Left 2nd Molar Coronal Tooth Call 0 - Sound 1 - Caries 2 - Filled 7 - Missing due to disease 8 - Missing no disease 9 - Excluded	 2913 699 8219 3183 100 18
	UPPER RIGHT QUADRANT	
308	Upper Right Central Incisor Coronal Tooth Call 0 - Sound 1 - Caries 2 - Filled 7 - Missing due to disease 8 - Missing no disease 9 - Excluded	 8796 416 3592 1836 249 243
309	Upper Right Lateral Incisor Coronal Tooth Call 0 - Sound 1 - Caries 2 - Filled 7 - Missing due to disease 8 - Missing no disease 9 - Excluded	 8540 439 3709 1966 377 101
310	Upper Right Cuspid Coronal Tooth Call 0 - Sound 1 - Caries 2 - Filled 7 - Missing due to disease 8 - Missing no disease 9 - Excluded	 10233 287 2702 1647 225 38

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132**

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
311	Upper Right 1st Bicuspid Coronal Tooth Call 0 - Sound 1 - Caries 2 - Filled 7 - Missing due to disease 8 - Missing no disease 9 - Excluded	6007 307 5444 2485 868 21
312	Upper Right 2nd Bicuspid Coronal Tooth Call 0 - Sound 1 - Caries 2 - Filled 7 - Missing due to disease 8 - Missing no disease 9 - Excluded	5613 334 6025 2942 201 17
313	Upper Right 1st Molar Coronal Tooth Call 0 - Sound 1 - Caries 2 - Filled 7 - Missing due to disease 8 - Missing no disease 9 - Excluded	2007 541 8787 3681 97 19
314	Upper Right 2nd Molar Coronal Tooth Call 0 - Sound 1 - Caries 2 - Filled 7 - Missing due to disease 8 - Missing no disease 9 - Excluded	2868 744 8285 3116 99 20
	LOWER LEFT QUADRANT	
315	Lower Left Central Incisor Coronal Tooth Call 0 - Sound 1 - Caries 2 - Filled 7 - Missing due to disease 8 - Missing no disease 9 - Excluded	13283 76 512 1073 158 30

NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
316	Lower Left Lateral Incisor Coronal Tooth Call	
	0 - Sound	13336
	1 - Caries	101
	2 - Filled	562
	7 - Missing due to disease	988
	8 - Missing no disease	130
	9 - Excluded	15
317	Lower Left Cuspid Coronal Tooth Call	
	0 - Sound	13157
	1 - Caries	134
	2 - Filled	904
	7 - Missing due to disease	820
	8 - Missing no disease	109
	9 - Excluded	8
318	Lower Left 1st Bicuspid Coronal Tooth Call	
	0 - Sound	9428
	1 - Caries	207
	2 - Filled	3393
	7 - Missing due to disease	1370
	8 - Missing no disease	728
	9 - Excluded	6
319	Lower Left 2nd Bicuspid Coronal Tooth Call	
	0 - Sound	6430
	1 - Caries	322
	2 - Filled	5848
	7 - Missing due to disease	2309
	8 - Missing no disease	218
	9 - Excluded	5
320	Lower Left 1st Molar Coronal Tooth Call	
	0 - Sound	1480
	1 - Caries	586
	2 - Filled	7896
	7 - Missing due to disease	5058
	8 - Missing no disease	103
	9 - Excluded	9

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE**

NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
321	Lower Left 2nd Molar Coronal Tooth Call	
	0 - Sound	2023
	1 - Caries	851
	2 - Filled	8475
	7 - Missing due to disease	3679
	8 - Missing no disease	101
	9 - Excluded	3
	LOWER RIGHT QUADRANT	
322	Lower Right Central Incisor Coronal Tooth Call	
	0 - Sound	13246
	1 - Caries	73
	2 - Filled	509
	7 - Missing due to disease	1092
	8 - Missing no disease	180
	9 - Excluded	32
323	Lower Right Lateral Incisor Coronal Tooth Call	
	0 - Sound	13240
	1 - Caries	128
	2 - Filled	610
	7 - Missing due to disease	998
	8 - Missing no disease	134
	9 - Excluded	22
324	Lower Right Cuspid Coronal Tooth Call	
	0 - Sound	13027
	1 - Caries	155
	2 - Filled	973
	7 - Missing due to disease	842
	8 - Missing no disease	120
	9 - Excluded	15
325	Lower Right 1st Bicuspid Coronal Tooth Call	
	0 - Sound	9260
	1 - Caries	218
	2 - Filled	3511
	7 - Missing due to disease	1398
	8 - Missing no disease	740
	9 - Excluded	5

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132**

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
326	Lower Right 2nd Bicuspid Coronal Tooth Call	
	0 - Sound	6322
	1 - Caries	335
	2 - Filled	5939
	7 - Missing due to disease	2308
	8 - Missing no disease	220
	9 - Excluded	8
327	Lower Right 1st Molar Coronal Tooth Call	
	0 - Sound	1522
	1 - Caries	556
	2 - Filled	8048
	7 - Missing due to disease	4902
	8 - Missing no disease	99
	9 - Excluded	5
328	Lower Right 2nd Molar Coronal Tooth Call	
	0 - Sound	2074
	1 - Caries	771
	2 - Filled	8639
	7 - Missing due to disease	3545
	8 - Missing no disease	94
	9 - Excluded	9

PERIODONTAL DESTRUCTION ASSESSMENTS

QUADRANTS 329

GINGIVAL ASSESSMENT 330-357

CALCULUS ASSESSMENT 358-371

LOSS OF ATTACHMENT ASSESSMENT 372-511

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132**

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
329	PERIODONTAL DESTRUCTION ASSESSMENTS	
	QUADRANTS (RANDOM SELECTION)	
	1 - Upper right and lower right	3776
	2 - Upper left and lower left	3788
	3 - Upper right and lower left	3763
	4 - Upper left and lower right	3805

GINGIVAL ASSESSMENT
330-357

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132**

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
	GINGIVAL ASSESSMENT (ONE UPPER QUADRANT)	
330-343	UPPER LEFT QUADRANT OR UPPER RIGHT QUADRANT	
330-331	Upper Central Incisor	
330	<i>Buccal Site</i>	
	0 - Absence of bleeding	12270
	1 - Presence of bleeding	597
	9 - Cannot be assessed	2265
331	<i>Mesial Site</i>	
	0 - Absence of bleeding	12529
	1 - Presence of bleeding	327
	9 - Cannot be assessed	2276
332-333	Upper Lateral Incisor	
332	<i>Buccal Site</i>	
	0 - Absence of bleeding	12022
	1 - Presence of bleeding	619
	9 - Cannot be assessed	2491
333	<i>Mesial Site</i>	
	0 - Absence of bleeding	12192
	1 - Presence of bleeding	438
	9 - Cannot be assessed	2502
334-335	Upper Cuspid	
334	<i>Buccal Site</i>	
	0 - Absence of bleeding	12196
	1 - Presence of bleeding	905
	9 - Cannot be assessed	2031
335	<i>Mesial Site</i>	
	0 - Absence of bleeding	12414
	1 - Presence of bleeding	673
	9 - Cannot be assessed	2045

NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
336-337	Upper 1st Bicuspid	
336	<i>Buccal Site</i>	
	0 - Absence of bleeding	10942
	1 - Presence of bleeding	614
	9 - Cannot be assessed	3576
337	<i>Mesial Site</i>	
	0 - Absence of bleeding	11060
	1 - Presence of bleeding	476
	9 - Cannot be assessed	3596
338-339	Upper 2nd Bicuspid	
338	<i>Buccal Site</i>	
	0 - Absence of bleeding	11180
	1 - Presence of bleeding	627
	9 - Cannot be assessed	3325
339	<i>Mesial Site</i>	
	0 - Absence of bleeding	11330
	1 - Presence of bleeding	464
	9 - Cannot be assessed	3338
340-341	Upper 1st Molar	
340	<i>Buccal Site</i>	
	0 - Absence of bleeding	10166
	1 - Presence of bleeding	1035
	9 - Cannot be assessed	3931
341	<i>Mesial Site</i>	
	0 - Absence of bleeding	10497
	1 - Presence of bleeding	692
	9 - Cannot be assessed	3943
342-343	Upper 2nd Molar	
342	<i>Buccal Site</i>	
	0 - Absence of bleeding	10081
	1 - Presence of bleeding	1611
	9 - Cannot be assessed	3440

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132**

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
343	<i>Mesial Site</i> 0 - Absence of bleeding 1 - Presence of bleeding 9 - Cannot be assessed	10679 993 3460
344-357	GINGIVAL ASSESSMENT (ONE LOWER QUADRANT) LOWER LEFT QUADRANT OR LOWER RIGHT QUADRANT	
344-345	Lower Central Incisor	
344	<i>Buccal Site</i> 0 - Absence of bleeding 1 - Presence of bleeding 9 - Cannot be assessed	12764 995 1373
345	<i>Mesial Site</i> 0 - Absence of bleeding 1 - Presence of bleeding 9 - Cannot be assessed	13158 573 1401
346-347	Lower Later Incisor	
346	<i>Buccal Site</i> 0 - Absence of bleeding 1 - Presence of bleeding 9 - Cannot be assessed	12915 966 1251
347	<i>Mesial Site</i> 0 - Absence of bleeding 1 - Presence of bleeding 9 - Cannot be assessed	13343 504 1285
348-349	Lower Cuspid	
348	<i>Buccal Site</i> 0 - Absence of bleeding 1 - Presence of bleeding 9 - Cannot be assessed	12980 1089 1063

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132**

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
349	<i>Mesial Site</i> 0 - Absence of bleeding 1 - Presence of bleeding 9 - Cannot be assessed	13386 648 1098
350-351	Lower 1st Bicuspid	
350	<i>Buccal Site</i> 0 - Absence of bleeding 1 - Presence of bleeding 9 - Cannot be assessed	12203 679 2250
351	<i>Mesial Site</i> 0 - Absence of bleeding 1 - Presence of bleeding 9 - Cannot be assessed	12444 412 2276
352-353	Lower 2nd Bicuspid	
352	<i>Buccal Site</i> 0 - Absence of bleeding 1 - Presence of bleeding 9 - Cannot be assessed	11965 491 2676
353	<i>Mesial Site</i> 0 - Absence of bleeding 1 - Presence of bleeding 9 - Cannot be assessed	12172 256 2704
354-355	Lower 1st Molar	
354	<i>Buccal Site</i> 0 - Absence of bleeding 1 - Presence of bleeding 9 - Cannot be assessed	9133 755 5244
355	<i>Mesial Site</i> 0 - Absence of bleeding 1 - Presence of bleeding 9 - Cannot be assessed	9623 252 5257

NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
356-357	Lower 2nd Molar	
356	<i>Buccal Site</i>	
	0 - Absence of bleeding	10059
	1 - Presence of bleeding	1220
	9 - Cannot be assessed	3853
357	<i>Mesial Site</i>	
	0 - Absence of bleeding	10707
	1 - Presence of bleeding	547
	9 - Cannot be assessed	3878

CALCULUS ASSESSMENT
358-371

NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
358-364	CALCULUS ASSESSMENT (ONE UPPER QUADRANT) UPPER LEFT QUADRANT OR RIGHT QUADRANT	
358	Upper Central Incisor	
	0 - None	10605
	1 - Supragingival only	676
	2 - Subgingival only or a combination of supragingival and subgingival	1574
	9 - Cannot be assessed	2277
359	Upper Lateral Incisor	
	0 - None	10125
	1 - Supragingival only	759
	2 - Subgingival only or a combination of supragingival and subgingival	1755
	9 - Cannot be assessed	2493
360	Upper Cuspid	
	0 - None	10322
	1 - Supragingival only	886
	2 - Subgingival only or a combination of supragingival and subgingival	1890
	9 - Cannot be assessed	2034
361	Upper 1st Bicuspid	
	0 - None	9699
	1 - Supragingival only	477
	2 - Subgingival only or a combination of supragingival and subgingival	1379
	9 - Cannot be assessed	3577
362	Upper 2nd Bicuspid	
	0 - None	9779
	1 - Supragingival only	516
	2 - Subgingival only or a combination of supragingival and subgingival	1511
	9 - Cannot be assessed	3326

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE**

NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
363	Upper 1st Molar 0 - None 1 - Supragingival only 2 - Subgingival only or a combination of supragingival and subgingival 9 - Cannot be assessed	7769 1117 2313 3933
364	Upper 2nd Molar 0 - None 1 - Supragingival only 2 - Subgingival only or a combination of supragingival and subgingival 9 - Cannot be assessed	6786 1538 3365 3443
365-371	CALCULUS ASSESSMENT (ONE LOWER QUADRANT) LOWER LEFT QUADRANT OR LOWER RIGHT QUADRANT	
365	Lower Central Incisor 0 - None 1 - Supragingival only 2 - Subgingival only or a combination of supragingival and subgingival 9 - Cannot be assessed	3842 5255 4659 1376
366	Lower Lateral Incisor 0 - None 1 - Supragingival only 2 - Subgingival only or a combination of supragingival and subgingival 9 - Cannot be assessed	4952 4587 4340 1253
367	Lower Cuspid 0 - None 1 - Supragingival only 2 - Subgingival only or a combination of supragingival and subgingival 9 - Cannot be assessed	6963 3215 3887 1067

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE**

NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
368	Lower 1st Bicuspid	
	0 - None	9404
	1 - Supragingival only	1212
	2 - Subgingival only or a combination of supragingival and subgingival	2264
	9 - Cannot be assessed	2252
369	Lower 2nd Bicuspid	
	0 - None	10017
	1 - Supragingival only	726
	2 - Subgingival only or a combination of supragingival and subgingival	1709
	9 - Cannot be assessed	2680
370	Lower 1st Molar	
	0 - None	7959
	1 - Supragingival only	600
	2 - Subgingival only or a combination of supragingival and subgingival	1336
	9 - Cannot be assessed	5237
371	Lower 2nd Molar	
	0 - None	8378
	1 - Supragingival only	929
	2 - Subgingival only or a combination of supragingival and subgingival	1979
	9 - Cannot be assessed	3846

LOSS OF ATTACHMENT ASSESSMENT
372-511

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132**

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
	LOSS OF ATTACHMENT ASSESSMENT (ONE UPPER QUADRANT)	
	FGM=FREE GINGIVAL-MARGIN CEJ=CEMENTO ENAMEL JUNCTION	
372-441	UPPER LEFT QUADRANT OR UPPER RIGHT QUADRANT	
372-381	Upper Central Incisor	
	<i>Buccal Site</i>	
372-374	FGM/CEJ	
	-12 to 12 mm - Actual measurement	12833
	99 - No measurement	2299
375-376	FGM/POCKET	
	00 to 12 mm - Actual measurement	12836
	99 - No measurement	2296
	<i>Mesial Site</i>	
377-379	FGM/CEJ	
	-12 to 12 mm - Actual measurement	12852
	99 - No measurement	2280
380-381	FGM/POCKET	
	00 to 12 mm - Actual measurement	12852
	99 - No measurement	2280
382-391	Upper Lateral Incisor	
	<i>Buccal Site</i>	
382-384	FGM/CEJ	
	-12 to 12 mm - Actual measurement	12605
	99 - No measurement	2527
385-386	FGM/POCKET	
	00 to 12 mm - Actual measurement	12606
	99 - No measurement	2526

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE**

NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
	<i>Mesial Site</i>	
387-389	FGM/CEJ	
	-12 to 12 mm - Actual measurement	12626
	99 - No measurement	2506
390-391	FGM/POCKET	
	00 to 12 mm - Actual measurement	12626
	99 - No measurement	2506
392-401	Upper Cuspid	
	<i>Buccal Site</i>	
392-394	FGM/CEJ	
	-12 to 12 mm - Actual measurement	13071
	99 - No measurement	2061
395-396	FGM/POCKET	
	00 to 12 mm - Actual measurement	13070
	99 - No measurement	2062
	<i>Mesial Site</i>	
397-399	FGM/CEJ	
	-12 to 12 mm - Actual measurement	13096
	99 - No measurement	2036
400-401	FGM/POCKET	
	00 to 12 mm - Actual measurement	13096
	99 - No measurement	2036

NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
402-411	Upper 1st Bicuspid	
	<i>Buccal Site</i>	
402-404	FGM/CEJ	
	-12 to 12 mm - Actual measurement	11544
	99 - No measurement	3588
405-406	FGM/POCKET	
	00 to 12 mm - Actual measurement	11545
	99 - No measurement	3587
	<i>Mesial Site</i>	
407-409	FGM/CEJ	
	-12 to 12 mm - Actual measurement	11543
	99 - No measurement	3589
410-411	FGM/POCKET	
	00 to 12 mm - Actual measurement	11543
	99 - No measurement	3589
412-421	Upper 2nd Bicuspid	
	<i>Buccal Site</i>	
412-414	FGM/CEJ	
	-12 to 12 mm - Actual measurement	11778
	99 - No measurement	3354
415-416	FGM/POCKET	
	00 to 12 mm - Actual measurement	11780
	99 - No measurement	3352

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE**

NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
	<i>Mesial Site</i>	
417-419	FGM/CEJ	
	-12 to 12 mm - Actual measurement	11787
	99 - No measurement	3345
420-421	FGM/POCKET	
	00 to 12 mm - Actual measurement	11787
	99 - No measurement	3345
422-431	Upper 1st Molar	
	<i>Buccal Site</i>	
422-424	FGM/CEJ	
	-12 to 12 mm - Actual measurement	11175
	99 - No measurement	3957
425-426	FGM/POCKET	
	00 to 12 mm - Actual measurement	11175
	99 - No measurement	3957
	<i>Mesial Site</i>	
427-429	FGM/CEJ	
	-12 to 12 mm - Actual measurement	11169
	99 - No measurement	3963
430-431	FGM/POCKET	
	00 to 12 mm - Actual measurement	11168
	99 - No measurement	3964

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132**

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
432-441	Upper 2nd Molar	
	<i>Buccal Site</i>	
432-434	FGM/CEJ	
	-12 to 12 mm - Actual measurement	11671
	99 - No measurement	3461
435-436	FGM/POCKET	
	00 to 12 mm - Actual measurement	11671
	99 - No measurement	3461
	<i>Mesial Site</i>	
437-439	FGM/CEJ	
	-12 to 12 mm - Actual measurement	11664
	99 - No measurement	3468
440-441	FGM/POCKET	
	00 to 12 mm - Actual measurement	11666
	99 - No measurement	3466
	LOSS OF ATTACHMENT ASSESSMENT (ONE LOWER QUADRANT)	
	LOWER LEFT QUADRANT OR LOWER RIGHT QUADRANT	
442-451	Lower Central Incisor	
	<i>Buccal Site</i>	
442-444	FGM/CEJ	
	-12 to 12 mm - Actual measurement	13673
	99 - No measurement	1459
445-446	FGM/POCKET	
	00 to 12 mm - Actual measurement	13674
	99 - No measurement	1458

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE**

NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
	<i>Mesial Site</i>	
447-449	FGM/CEJ	
	-12 to 12 mm - Actual measurement	13699
	99 - No measurement	1433
450-451	FGM/POCKET	
	00 to 12 mm - Actual measurement	13702
	99 - No measurement	1430
452-461	Lower Lateral Incisor	
	<i>Buccal Site</i>	
452-454	FGM/CEJ	
	-12 to 12 mm - Actual measurement	13825
	99 - No measurement	1307
455-456	FGM/POCKET	
	00 to 12 mm - Actual measurement	13826
	99 - No measurement	1306
	<i>Mesial Site</i>	
457-459	FGM/CEJ	
	-12 to 12 mm - Actual measurement	13830
	99 - No measurement	1302
460-461	FGM/POCKET	
	00 to 12 mm - Actual measurement	13830
	99 - No measurement	1302

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132**

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
462-471	Lower Cuspid	
	<i>Buccal Site</i>	
462-464	FGM/CEJ	
	-12 to 12 mm - Actual measurement	14015
	99 - No measurement	1117
465-466	FGM/POCKET	
	00 to 12 mm - Actual measurement	14016
	99 - No measurement	1116
	<i>Mesial Site</i>	
467-469	FGM/CEJ	
	-12 to 12 mm - Actual measurement	14053
	99 - No measurement	1079
470-471	FGM/POCKET	
	00 to 12 mm - Actual measurement	14055
	99 - No measurement	1077
472-481	Lower 1st Bicuspid	
	<i>Buccal Site</i>	
472-474	FGM/CEJ	
	-12 to 12 mm - Actual measurement	12862
	99 - No measurement	2270
475-476	FGM/POCKET	
	00 to 12 mm - Actual measurement	12862
	99 - No measurement	2270

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132**

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
477-479	<i>Mesial Site</i>	
	FGM/CEJ	
	-12 to 12 mm - Actual measurement 99 - No measurement	12869 2263
480-481	FGM/POCKET	
	00 to 12 mm - Actual measurement 99 - No measurement	12870 2262
482-491	Lower 2nd Bicuspid	
482-484	<i>Buccal Site</i>	
	FGM/CEJ	
	-12 to 12 mm - Actual measurement 99 - No measurement	12439 2693
485-486	FGM/POCKET	
	00 to 12 mm - Actual measurement 99 - No measurement	12438 2694
487-489	<i>Mesial Site</i>	
	FGM/CEJ	
	-12 to 12 mm - Actual measurement 99 - No measurement	12422 2710
490-491	FGM/POCKET	
	00 to 12 mm - Actual measurement 99 - No measurement	12421 2711

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132**

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
492-501	Lower 1st Molar	
	<i>Buccal Site</i>	
492-494	FGM/CEJ	
	-12 to 12 mm - Actual measurement	9882
	99 - No measurement	5250
495-496	FGM/POCKET	
	00 to 12 mm - Actual measurement	9883
	99 - No measurement	5249
	<i>Mesial Site</i>	
497-499	FGM/CEJ	
	-12 to 12 mm - Actual measurement	9884
	99 - No measurement	5248
500-501	FGM/POCKET	
	00 to 12 mm - Actual measurement	9883
	99 - No measurement	5249
502-511	Lower 2nd Molar	
	<i>Buccal Site</i>	
502-504	FGM/CEJ	
	-12 to 12 mm - Actual measurement	11278
	99 - No measurement	3854
505-506	FGM/POCKET	
	00 to 12 mm - Actual measurement	11280
	99 - No measurement	3852

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132**

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
507-509	<i>Mesial Site</i> FGM/CEJ -12 to 12 mm - Actual measurement 99 - No measurement	11270 3862
510-511	FGM/POCKET 00 to 12 mm - Actual measurement 99 - No measurement	11270 3862

SUMMARY CLINICAL VARIABLES
512-523

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132**

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
512-523	SUMMARY VARIABLES	
	DECAYED (D) MISSING (M) OR FILLED (F) ASSESSMENTS FOR PERSON	
512-513	DFT 00-28 - # of D or F teeth scored for caries 99 - Not applicable	14333 799
514-516	DFS 000-128 - # of D or F surfaces scored for caries 999 - Not applicable	14333 799
517-519	DMFS 000-128 - # of D or F surfaces scored for caries and M surfaces scored for disease (includes edentulous persons with 128 missing surfaces) 999 - Not applicable	15047 85
	LOSS OF ATTACHMENT (LA)	
520	LA Recode #1 for Person 0 - All scored sites <1 or cannot be determined 1 - At least one scored site with LA >= 1	937 14195
521	LA Recode #2 for Person 0 - All scored sites <2 or cannot be determined 1 - At least one scored site with LA >= 2	3637 11495

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE**

NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
522-523	Maximum LA in mm for Person	
	00	33
	01	2700
	02	4569
	03	3090
	04	1648
	05	932
	06	579
	07	308
	08	189
	09	85
	10	46
	11	30
	12	12
	13	4
	14	3
	99 - Cannot be determined (includes 799 edentulous persons and 105 persons who could not be assessed for other reasons.)	904
524-525	Blank	15132

**PERSON SAMPLING WEIGHT
AND
VARIANCE ESTIMATION VARIABLES
526-892**

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE**

NUMBER OF RECORDS = 15,132

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
526-892	VARIANCE ESTIMATION VARIABLES	
526-527	Pseudostratum Identification	
	01	808
	02	221
	03	264
	04	120
	05	197
	06	349
	07	134
	08	781
	09	407
	10	99
	11	289
	12	272
	13	197
	14	675
	15	405
	16	303
	17	295
	18	254
	19	206
	20	673
	21	255
	22	470
	23	216
	24	130
	25	525
	26	339
	27	242
	28	276
	29	253
	30	164
	31	191
	32	510
	33	435
	34	393
	35	797
	36	313
	37	135
	38	949
	39	338
	40	289
	41	124
	42	359
	43	278
	44	202

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132**

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
528	Pseudo-PSU Identification	
	1	8048
	2	7084
529	Race Recode (Poststratification)	
	1 - White	11389
	2 - Hispanic Origin	1571
	3 - Black and Other	2172
530-540	Person Sampling Weight	15132
541-892	Replicate Weights	
541-548	Replicate Weight 01	15132
549-556	Replicate Weight 02	15132
557-564	Replicate Weight 03	15132
565-572	Replicate Weight 04	15132
573-580	Replicate Weight 05	15132
581-588	Replicate Weight 06	15132
589-596	Replicate Weight 07	15132
597-604	Replicate Weight 08	15132
605-612	Replicate Weight 09	15132
613-620	Replicate Weight 10	15132
621-628	Replicate Weight 11	15132
629-636	Replicate Weight 12	15132
637-644	Replicate Weight 13	15132
645-652	Replicate Weight 14	15132
653-660	Replicate Weight 15	15132
661-668	Replicate Weight 16	15132
669-676	Replicate Weight 17	15132
677-684	Replicate Weight 18	15132
685-692	Replicate Weight 19	15132

**NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS
PUBLIC USE FILE
NUMBER OF RECORDS = 15,132**

FILE LOCATION	ITEM DESCRIPTION & CODES	CONTROL COUNTS
693-700	Replicate Weight 20	15132
701-708	Replicate Weight 21	15132
709-716	Replicate Weight 22	15132
717-724	Replicate Weight 23	15132
725-732	Replicate Weight 24	15132
733-740	Replicate Weight 25	15132
741-748	Replicate Weight 26	15132
749-756	Replicate Weight 27	15132
757-764	Replicate Weight 28	15132
765-772	Replicate Weight 29	15132
773-780	Replicate Weight 30	15132
781-788	Replicate Weight 31	15132
789-796	Replicate Weight 32	15132
797-804	Replicate Weight 33	15132
805-812	Replicate Weight 34	15132
813-820	Replicate Weight 35	15132
821-828	Replicate Weight 36	15132
829-836	Replicate Weight 37	15132
837-844	Replicate Weight 38	15132
845-852	Replicate Weight 39	15132
853-860	Replicate Weight 40	15132
861-868	Replicate Weight 41	15132
869-876	Replicate Weight 42	15132
877-884	Replicate Weight 43	15132
885-892	Replicate Weight 44	15132

TABLE 1: RACIAL AND ETHNIC COMPOSITION OF THE SAMPLE AND ESTIMATED POPULATION BY AGE INTERVAL AND GENDER.
NATIONAL SURVEY OF ORAL HEALTH IN EMPLOYED ADULTS. 1985-86

AGE INTERVAL	RACIAL/ETHNIC GROUP	GENDER					
		MALE		FEMALE		TOTAL	
		NUMBER IN SAMPLE	ESTIMATED POPULATION	NUMBER IN SAMPLE	ESTIMATED POPULATION	NUMBER IN SAMPLE	ESTIMATED POPULATION
18-19	WHITE	106	1,520,000	105	1,512,000	211	3,032,000
	HISPANIC	35	139,600	19	113,300	54	252,900
	BLACK & OTHER	15	96,187	14	89,559	29	185,746
	ALL GROUPS	156	1,755,787	138	1,714,859	294	3,470,646
20-24	WHITE	507	5,434,800	691	5,228,000	1198	10,662,800
	HISPANIC	135	612,600	108	413,500	243	1,026,100
	BLACK & OTHER	100	966,513	105	915,941	205	1,882,454
	ALL GROUPS	742	7,013,913	904	6,557,441	1646	13,571,354
25-29	WHITE	693	6,645,900	799	5,406,000	1492	12,051,900
	HISPANIC	148	735,900	128	443,500	276	1,179,400
	BLACK & OTHER	137	1,080,200	167	1,004,500	304	2,084,700
	ALL GROUPS	978	8,462,000	1094	6,854,000	2072	15,316,000
30-34	WHITE	652	6,616,400	687	5,051,200	1339	11,667,600
	HISPANIC	118	589,200	99	372,900	217	962,100
	BLACK & OTHER	150	988,400	181	996,900	331	1,985,300
	ALL GROUPS	920	8,194,000	967	6,421,000	1887	14,615,000
35-39	WHITE	686	5,985,000	590	4,666,800	1276	10,651,800
	HISPANIC	103	436,300	78	308,000	181	744,300
	BLACK & OTHER	144	832,700	179	838,200	323	1,670,900
	ALL GROUPS	933	7,254,000	847	5,813,000	1780	13,067,000
40-44	WHITE	733	4,879,200	715	3,865,200	1448	8,744,400
	HISPANIC	85	362,500	99	254,700	184	617,200
	BLACK & OTHER	140	662,300	168	669,100	308	1,331,400
	ALL GROUPS	958	5,904,000	982	4,789,000	1940	10,693,000

TABLE 1 (continued)

AGE INTERVAL	RACIAL/ETHNIC GROUP	GENDER					
		MALE		FEMALE		TOTAL	
		NUMBER IN SAMPLE	ESTIMATED POPULATION	NUMBER IN SAMPLE	ESTIMATED POPULATION	NUMBER IN SAMPLE	ESTIMATED POPULATION
45-49	WHITE	631	3,941,100	668	2,983,400	1299	6,924,500
	HISPANIC	82	260,000	71	183,000	153	443,000
	BLACK & OTHER	97	535,900	131	499,600	228	1,035,500
	ALL GROUPS	810	4,737,000	870	3,666,000	1680	8,403,000
50-54	WHITE	616	3,516,400	578	2,545,400	1194	6,061,800
	HISPANIC	55	234,800	63	167,500	118	402,300
	BLACK & OTHER	96	442,800	102	415,100	198	857,900
	ALL GROUPS	767	4,194,000	743	3,128,000	1510	7,322,000
55-59	WHITE	515	3,283,300	485	2,275,800	1000	5,559,100
	HISPANIC	44	165,500	43	99,700	87	265,200
	BLACK & OTHER	57	372,200	83	319,500	140	691,700
	ALL GROUPS	616	3,821,000	611	2,695,000	1227	6,516,000
60-64	WHITE	345	2,138,000	292	1,490,900	637	3,628,900
	HISPANIC	26	130,052	19	61,818	45	191,870
	BLACK & OTHER	46	219,000	37	173,500	83	392,500
	ALL GROUPS	417	2,487,052	348	1,726,218	765	4,213,270
65 AND OVER	WHITE	163	1,286,300	132	866,800	295	2,153,100
	HISPANIC	6	25,148	7	36,882	13	62,030
	BLACK & OTHER	14	139,485	9	64,115	23	203,600
	ALL GROUPS	183	1,450,934	148	967,797	331	2,418,730
ALL AGES	WHITE	5647	45,246,400	5742	35,891,500	11389	81,137,900
	HISPANIC	837	3,691,600	734	2,454,800	1571	6,146,400
	BLACK & OTHER	996	6,335,685	1176	5,986,015	2172	12,321,700
	ALL GROUPS	7480	55,273,685	7652	44,332,315	15132	99,606,000

**TABLE 2: NUMBER OF PERSONS AND ESTIMATED POPULATION WITH DECAYED AND FILLED TEETH (DFT) AND DECAYED AND FILLED SURFACES (DFS)
NATIONAL SURVEY OF ORAL HEALTH IN U.S. EMPLOYED ADULTS: 1985-86**

NUMBER	DFT		DFS	
	NUMBER IN SAMPLE	ESTIMATED POPULATION	NUMBER IN SAMPLE	ESTIMATED POPULATION
0	542	3,838,840	542	3,838,840
1	473	2,928,117	287	1,818,346
2	508	3,423,218	333	2,098,993
3	542	3,741,969	292	2,046,090
4	588	4,117,862	316	2,143,255
5	673	4,509,568	303	2,312,519
6	702	4,584,741	337	2,216,556
7	804	5,821,159	323	2,702,258
8	1064	8,001,374	381	2,646,851
9	965	6,568,694	393	2,830,038
10	883	6,014,810	386	2,899,193
11	875	5,781,155	359	2,601,777
12	878	5,302,139	374	2,609,445
13	847	5,650,664	378	2,814,164
14	779	5,074,709	330	2,610,762
15	674	4,374,313	335	2,408,035
16	599	3,598,657	320	2,256,432
17	482	3,231,758	335	2,199,986
18	380	2,067,242	308	1,904,321
19	345	2,120,331	304	2,190,532
20	247	1,671,736	312	1,832,813
21	192	1,127,108	275	2,089,403
22	135	912,905	283	1,660,941
23	58	263,318	254	1,737,476
24	40	246,791	272	1,777,999
25	35	276,124	260	1,647,517
26	16	111,489	235	1,812,886
27	7	55,347	262	1,829,039
28	0	0	226	1,511,316
29-49	-	-	3,437	20,912,408
50-69	-	-	1,274	7,708,063
70 AND OVER	-	-	307	1,747,884
ENDENTULOUS	799	4,189,973	799	4,189,973
ALL PERSONS	15,132	99,606,111	15,132	99,606,111

IV. DEFINITIONS FOR SELECTED DATA ITEMS AND SUMMARY RECODES FOR CLINICAL ASSESSMENTS

DECAYED (D) MISSING (M) OR FILLED (F) ASSESSMENTS FOR PERSONS

DFT in COLUMNS 512-513 is based on the coronal caries tooth calls located in COLUMNS 301-328 and represents the number of tooth codes 1 and 2 for each tooth. DFS in COLUMNS 514-516 is based on the coronal caries surface assessments located in COLUMNS 49-188 and represents the number of surface codes 1-6 for each tooth. DMFS in COLUMNS 517-519 is also based on the coronal caries surface assessments located in COLUMNS 49-188 and represents the number of surface codes 1-7 for each tooth assessed. The code 99 or 999 is utilized for surfaces excluded from the clinical assessment for coronal caries.

PERIODONTAL ASSESSMENTS

- **Quadrants and Sites**

Periodontal assessments were made in 28 buccal and mesial sites in random combinations of quadrants for all persons *with at least one tooth present*. The detailed descriptions for the periodontal assessments for gingival bleeding, calculus and periodontal destruction are located in Appendix I. Each designation of combined quadrants represents approximately ¼ of the randomly selected sampled persons. The combinations of upper and lower quadrants are located in COLUMN 329 and represent the following:

- 1 = upper right and lower right
- 2 = upper left and lower left
- 3 = upper right and lower left
- 4 = upper left and lower right

- **Gingival Assessment**

An affected site for the gingival assessment was defined as one that bled after gentle probing of the sulcus. The gingival assessment for buccal and mesial sites for each tooth assessed is located in COLUMNS 330-357.

- **Calculus Assessment**

For the calculus assessment two sites were examined but only one call was recorded for each tooth eligible to be assessed. The codes for the calculus assessment are located in COLUMNS 358-371.

- **Periodontal Destruction Assessments**

Recession

Pocket Depth

Loss of Attachment (LA)

LA Recodes

The distance from the free gingival margin (FGM) to the cemento-enamel junction (FGM/CEJ) and the distance from the FGM to the bottom of the sulcus or pocket (FGM/POCKET) were measured directly by the examiner in the buccal and mesial sites for each tooth in the designated upper and lower quadrants. A total of 28 sites were eligible to be examined unless the tooth was missing or the site could not be assessed for other reasons. When gingival recession was present the FGM/CEJ measurement was recorded as a negative value (-12 to -01). When no recession was present the value for the FGM/CEJ measurement is a positive value (00 to 12). Pocket depth represents the distance in millimeters (mm) from the CEJ to the bottom of the pocket.

The LA is calculated by subtraction of the two measurements [FGM/Pocket - FGM/CEJ] for each site. If one of the measurements is missing, the calculation of LA cannot be made. The FGM/CEJ and FGM/POCKET measurements in mm by site for each tooth assessed are located in COLUMNS 372-511.

The LA RECODE #1 for all persons with at least one scored site with LA ≥ 1 is located in COLUMN 520. The LA RECODE #2 for all persons with at least one scored site with LA ≥ 2 is coded in COLUMN 521. The maximum LA in mm for the scored sites is located in COLUMNS 522-523.

V. ADMINISTRATION AND PROCEDURES

Enlistment of the Participation of Businesses and Employees

To ensure quality, the survey was administered according to standard procedures throughout the training and field work, and the criteria for the dental examinations were precisely defined. To achieve a 90 percent cooperation rate among selected business establishments, the procedure included

- advance contacts to obtain endorsement from relevant influential organizations;
- contacts on the State and regional level to pave the way for acceptance of the survey;
- addressing specific concerns that sampled facilities might have about participation; and
- refusal conversion.

To achieve a 95 percent response rate among individuals, procedures used to encourage employee response included

- a liaison within each business to ensure that all interactions proceeded smoothly and efficiently;
- distribution of materials introducing and explaining the survey (including endorsement letters from the American Dental Association);
- advance meetings with employees; and
- conveniently scheduled examinations and written reminders of appointments.

Training and Calibration

The preparation for conducting dental examinations nationwide was extensive. Training for all staff was rigorous, requiring formal 1-day sessions for the facility screening and negotiation team and for local coordinators, 1 week's classes for traveling field coordinators, and 2 weeks' training and calibrating for the examination teams. A pretest and 1-day debriefing followed the training and calibration.

Facility Screening and Negotiation Team

Experienced telephone interviewers were selected as members of the screening and negotiating team. All were familiar with the complexities of negotiating with business facilities. Training for the screening and negotiation team, conducted approximately 2 months before the startup for the coordinating team members, allowed lead time sufficient to screen, negotiate, and recruit business facilities for the first examinations. A 1-day training session for the facility screening and negotiation team members was held.

The initial staff—three full-time screener/negotiators and two clerks trained to assist by organizing assignments and preparing advance packets for businesses—was augmented to nine screener/negotiators and two full-time supervisors after it became obvious that their work was more time consuming and difficult than anticipated. The addition of more lead time for screening and negotiations provided field coordinators sufficient time to work in their assigned facilities.

Training for screening and negotiation team members consisted of a step-by-step review of the screening and negotiation procedure manuals and forms designed expressly for this project, study definitions, and role-playing.

Field Coordination Team

A 1-week training session was held for 10 full-time coordinators (of whom 7 had extensive field experience on prior studies) and four temporary coordinators who would serve as local coordinators during the Washington, DC, area pilot study. Included in the instruction were classroom interactive lectures, visual aides, role plays, and exercises covering sampling, scheduling, recordkeeping, and reporting procedures.

Immediately after training, the field coordinators traveled to their first PSU assignments, which enabled them to complete their assignments before the arrival of the examination teams. Local (nontraveling) coordinators hired in each PSU assisted the lead coordinators with advance coordination and recruitment. Preparation for the average 3 to 4 weeks' work at the local level, which also entailed assisting the examination teams in the PSUs, consisted of about 8 hours' training, generally divided evenly between recruitment and examination procedures. By accompanying the lead coordinators on at least one visit to each sampled facility, the local coordinators became acquainted with the contact person and physical layout at each location prior to the examination period. They then assisted the lead coordinators with scheduling employees recruited at group meetings and telephoning sampled employees when personal contact was impossible.

Dental Examination Team

Joint training for nine dentists and nine recorders comprised, during the first week, an introduction to the purpose of the study, the sample design, the method of data collection, the

role and responsibility of each member of the team, and the dental equipment used for the study. Conducted by NIDR staff, the sessions included lectures and demonstrations of the criteria for each dental assessment.

The second week of training, conducted by Westat staff, consisted of a 1-day review of the criteria for each assessment and 3 days of timed examiner calibration. During the calibration sessions, each examiner and the senior dental advisor (the standard) examined the same subjects, after which data forms were collected. NIDR staff entered the data into a computer to compare the results from field examiners and the senior dental advisor. The differences were very small, indicating that all examiners were closely calibrated to the standard. To foster optimum teamwork, the dentists and recorders were both exposed to the coding conventions as well as the examination criteria.

Pilot Study

A pilot study conducted in the Washington, DC, area the week following examiner and recorder training provided an opportunity to test field procedures and dental equipment and to observe the examination team under field conditions. During the pilot test, employees were examined at several businesses. A 1-day debriefing session was held immediately after the pilot test.

Field Procedures

Field work began at the home office approximately 1 to 2 months before field activities were to begin in a PSU, when the screening and negotiating team contacted each facility for the sample by telephone to secure its participation in the study.

Each of the nine teams, and one backup team, conducting field activities for the study consisted of a traveling coordinator, a local coordinator, a dentist, and a recorder. Shortly after screening and negotiating activities were completed in a PSU, one or more coordinators arrived in the PSU to finish any negotiations with the business establishments, to conduct sampling and recruiting of individuals within each business facility, to schedule examination days at the facilities, and to schedule examinees' appointments. The coordinators began working in PSUs 2 or 3 weeks prior to the arrival of the examiners. During the 1-day overlap when the coordinator and the dentist and recorder were in the same PSU, the coordinator briefed the others on the facilities and gave them examination schedules, then left the PSU to begin activities in the next scheduled PSU.

The dentist, recorder, and local assistant coordinator traveled to the business facilities each day to conduct the examinations, taking portable dental equipment with them. Examinations were conducted inside the business if the facility could provide space for the examinations. When space was not available within a facility, the examinations were performed in mobile examination centers (MECs), large recreational vehicles fully equipped for dental

examinations. For facilities having 70 or more sampled employees, two dentists and two recorders were usually scheduled to minimize the number of examination days at a facility.

To avoid the effects of weather on examination schedules, the examination teams began in the Southeast, moving across the South and Southwest during the early spring and reaching the West Coast by May. They then traveled through the Northwest and the Midwest during the early summer, reaching the northeastern States by fall. Field operations were completed in the Northeast during late fall 1985 and winter 1986. Dental examiners were rotated within regions and among PSUs.

Response Rates

In all regions, the variability of response rates was a result of several key factors:

- Large businesses tended to be more bureaucratic than smaller businesses about recruitment during working hours.
- Coordinators encountered greater resistance when they attempted to schedule group meetings or to arrange other forms of employee contact in large facilities.
- Locating and recruiting employees in large facilities was more difficult and time consuming than in smaller businesses (often resulting in a relatively high proportion of sampled employees remaining "noncontacted" by the expiration of the recruitment time).

Final overall response rates by region are given below.

<i>Regions</i>	<i>No. Contacted at Exam Time</i>	<i>No. Examined</i>	<i>Response Rates</i>
I	2,268	2,093	92%
II	2,239	2,045	91%
III	2,353	2,138	91%
IV	1,950	1,744	89%
V	2,224	1,990	89%
VI	2,797	2,583	92%
VII	<u>2,804</u>	<u>2,539</u>	<u>91%</u>
Total	16,635	15,132	91%

VI. ORAL EXAMINATION CRITERIA AND QUALITY CONTROL

General Procedures

Upon the arrival of the dentist and recorder in a PSU, the coordinator briefed them on their scheduled facilities and on any problems within each facility. The local coordinators also attended these briefings.

On examination day, the examination teams arrived at the facilities at least 30 minutes ahead of the first scheduled examination and checked in with the contact person. The dentist and recorder set up the portable dental equipment in the designated area. When space was not available within the facility, a mobile examination center (MEC) was driven to the facility and parked within walking distance.

At examination time, the local coordinator requested that each participant complete a consent form and a brief demographic and dental history profile. The dentist conducted an oral examination to determine the extent of coronal and root surface caries and periodontal disease, and called out data codes to indicate the findings. The dental recorder marked the appropriate data codes on an optical scanning form. At the conclusion of the examination, with the subject still present, the recorder scan-edited the data to ensure accuracy, completeness, and legibility. All forms for a PSU were submitted in a batch for processing by the NIDR.

Diagnostic Criteria

Coronal and root surface caries assessments were made for 28 permanent teeth (128 tooth surfaces) and for gingival bleeding, calculus, and periodontal attachment level at two sites per tooth (mesial and buccal) in half the upper and lower arches, in randomly selected quadrants.

The diagnostic criteria for this survey are presented in Appendix I. These criteria were excerpted from the *National Survey of Oral Health in U.S. Employed Adults and Seniors: Calibration and Training, January 14-18, 1985*.

Quality Control

Quality control procedures were instituted to ensure that the data collected would be reliable and valid. These procedures were to conduct replicate examinations, to observe examiners, and to rotate and move examination teams between PSUs.

To minimize the effect of potential examiner bias within a PSU, examination teams were scheduled so that no more than 20 percent of the examinations in a PSU would be conducted by any one examiner. Throughout the study, the schedule was monitored and altered as necessary to ensure adherence to this "20 percent rule." Recorders were rotated among examiners to avoid the systematic bias of any examiner-recorder data recording pattern. At

least two examination teams examined the subjects in each PSU; four or five teams performed the examinations in each region.

Besides conducting the calibration of all clinical assessments and pretesting of the fieldwork, the standard examiner visited each examination team in the field and performed replicate examinations on groups of study subjects to compare findings.

As discussed above, the environment in which the examinations were performed and the equipment, instruments, and supplies used by the dentists and recorders were also fully standardized. In each facility with adequate space for the procedure (i.e., large establishments) the setup of portable equipment and instrumentation was exactly that specified by the study protocol. At sites lacking adequate examination space, the use of MECs ensured identical conditions.

Adherence to a strict time frame for conducting the examinations, as well as for preliminary screening, negotiations, and followup with makeup examinations, was also a means of maintaining quality control, minimizing uncontrolled variables that could affect rates of participation or even the examinations themselves. Designated procedures were observed for all contacts with businesses and employees.

The standard recruitment procedures were designed to yield maximum initial response rates. Printed information, letters of introduction, and reminders were carefully designed and used uniformly for the duration of the study. To increase response rates where there were high refusal rates within sampled businesses and employee populations, standard refusal conversion efforts (during both the initial recruitment and examination stages) were instituted in preference to replacing employees or negotiating the participation of additional businesses. Because screener/negotiators were monitored for individual differences and appropriate adjustments were implemented, response rates varied minimally.

VII. DATA ANALYSIS AND VARIANCE ESTIMATION

Constructing Estimates

Constructing estimates from the OHEA requires some care. The data were obtained from a complex, multistage probability sample selected from a population. In this section, recommended procedures and the rationale behind them are described. General considerations are presented first, then more specific ones.

Weighting Data

The general methods of estimation and analysis of data described in standard textbooks assume that all sample observations are independently selected, with equal probabilities of selection, i.e., that the data are from a simple random sample. The requirements for simple random sampling are rarely met in surveys since it is almost always more cost effective to select samples through a complex sample design (e.g., using stratification, clustering of observations, and different sampling rates for different subgroups of the population) than to select simple random samples. Due to varying selection probabilities and covariances, serious biases could be introduced and misleading results obtained if standard methods were applied to data from complex designs. Because this NIDR survey employed unequal weights and clustered samples, simple random sampling assumptions are inappropriate.

Weighting sample data so that tabulations give estimates of population totals is a common procedure in complex sample surveys. It is essential when universe totals are required. Although it is less critical when the focus is on internal analysis of the sample data (e.g., regression models) rather than on population totals and percentages, even in these situations weighting will frequently improve the quality of the estimates.

Weighting is normally used to accomplish a number of objectives, all of which apply to this survey:

- to bring sample data up to the dimensions of population totals;
- to permit unbiased estimates when elements of the population have different probabilities of selection;
- to use auxiliary data to reduce sampling errors;
- to minimize biases arising from the fact that nonrespondents may be different from respondents; and
- to reduce other imperfections in the study; for example, if the sampling frame does not comprise the entire population of interest, there may be minor errors in sampling.

Population Estimates

An estimator of the population mean, \hat{Y}_1 (i.e., y_i = number of permanent teeth) based on the sample is

$$\hat{Y}_1 = \frac{\sum_{i=1}^n w_i y_i}{\sum_{i=1}^n w_i}, \quad \text{where } w_i \text{ is the person sampling weight}$$

and similarly an estimator of a population total, \hat{Y}_2 (i.e., y_i = indicator for an edentulous person) is

$$\hat{Y}_2 = \sum_{i=1}^n w_i y_i, \quad y_i = \begin{cases} 1, & \text{if edentulous} \\ 0, & \text{otherwise} \end{cases}$$

w_i is the person sampling weight

Other Considerations

Other uses of the data from this survey involve two important considerations. The first is that of multiple measurements. Although the weights are on a person level, there are multiple measures (m measures on n teeth) per person. To obtain person-level statistics, summary statistics must be constructed. For instance, a separate measure exists for each tooth. If an individual has k teeth and d_i is a measured characteristic of the i -th tooth, then the average level of the characteristic for the j -th person is

$$\bar{d}_j = \frac{1}{k} \sum_{i=1}^k d_i$$

Other possible person-level summaries include

$$\max (d_1, \dots, d_k) \text{ and } 1 - \prod_{i=1}^k (1 - d_i)$$

The first example might be useful for summarizing pocket depth. The second is useful for summarizing whether any of the teeth meet a specific criterion. In that case, d_i is an indicator variable that is equal to 1 if a tooth meets a criterion; otherwise, it is zero. Summary statistics are appropriately adjusted by the person sampling weight.

The second consideration encountered is that of missing data, a common problem in surveys. The loss of information is caused by failure either to obtain or to record data. The many

techniques for adjusting for missing data include making assumptions about the missing data and imputation (see Little and Rubin, 1986).

Reliability of Estimates

Two types of errors are possible in making an estimate based on a sample survey—sampling and nonsampling. The standard error primarily indicates the magnitude of the sampling error, i.e., the variation in the data that occurs by chance because a sample rather than the entire population was surveyed. While standard errors also partially measure the effect of some nonsampling errors such as nonresponse, they do not measure any systematic biases in the data. The nonsampling errors can be attributed to many sources, e.g., inability to obtain information about all sampled individuals, definitional difficulties, collection errors made during recording or coding, data processing errors, estimating values for missing data, and failure to represent all units within the sample. The full extent of nonsampling error is generally unknown.

The next section describes procedures for calculating estimates for standard errors and for using these estimates to determine the amount of confidence that users should place in statistics from the survey. Particular emphasis is placed upon statistics that involve comparisons between subgroups of the population. These procedures are based on the assumption that no systematic biases exist. Users should always consider the possibility that biases are distorting statistics and comparisons.

Variance Estimates

Variance is defined as a measure of a statistic's reliability due to random selection. In particular, design variance is due to the randomness that arises because a sample rather than the whole population is examined. If the whole population were selected, the sampling variance would be zero. This heuristic definition can be put in more theoretical terms:

Let s_1, s_2, \dots, s_I be the set of all possible samples of the study population that can be obtained from a given sample design.

Let p_1, p_2, \dots, p_I be the respective probabilities of selecting each of the samples. Assume x is a statistic of interest.

Let x_1, x_2, \dots, x_I be the estimates of x that would be obtained from each of the possible samples.

Let \hat{x} be the estimate from the sample that is actually selected.

Then the expectation, variance, and standard error of \hat{x} are defined as follows:

$$E(\hat{X}) = \sum_{i=1}^I p_i x_i$$

$$\text{Var}(\hat{X}) = \sum_{i=1}^I p_i [x_i - E(\hat{X})]^2$$

$$\text{se}(\hat{X}) = \sqrt{\text{Var}(\hat{X})}$$

Techniques for estimation of variances in complex surveys include Taylor series linearization (TSL) and balanced repeated replications (BRR), of which balanced half-sample replication (BHS) is a special case (McCarthy, 1966, 1969). The BHS procedure requires a design with two primary units per stratum, or appropriate association of sampling units with one of two pairs. Half-samples are then formed by selecting one unit from the pair in each stratum. Each different way of splitting the sample into two half-samples leads to another replicate estimate. The variance among the replicate estimates provides an estimate of the variance of the statistic. In this study, pseudostrata have been formed so that two PSUs are assigned to each stratum. Pseudostratum and pseudo PSU are given in data file locations 526-527 and 528 respectively.

For the purpose of developing estimates of variance using BRR, 44 variance strata were constructed. For each replicate, the original weights were ratio-readjusted by gender, race (white, Hispanic, Black and other), and age group (18-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, ≥ 65) so that the weight of an individual could be changed over replications. Judkins (1989) used a modified version of BRR to estimate standard errors for these data. The first half-sample of each of the 44 replicates was adjusted down by 10 percent and the second half-sample was adjusted up by 10 percent. The adjustments to the weights were then recalculated for each replicate. (These weights are available in file locations 541-892.)

In general, denote a sample estimate x (e.g., decayed, missing, filled teeth) by x_k from the k -th half-sample; $k=1, 2, \dots, 44$.

A population value for x is estimated by

$$\bar{x} = \frac{1}{44} \sum_{k=1}^{44} x_k$$

and the sample variance of x is given by

$$\text{Est}(\text{var } x) = \sum_{k=1}^{44} \frac{(x_k - \bar{x})^2}{44}$$

In the case of the perturbation factor (p) (Judkins, 1990),

$$\text{Var}_p(x) = 100 \text{ Var}(x) \text{ where } 100 = \frac{1}{p^2}, p=0.10.$$

The advantage of this method is its simplicity, since the estimate x may be a simple linear estimate such as a population total or a mean, or a complex nonlinear estimate such as a correlation coefficient. Thus, given the person sampling weights (file locations 530-540) and a set of half-sample weights, the variance of any estimate may be computed by applying the formula shown above.

Software for Calculation of Variances

A number of computer programs have been developed to calculate sampling errors of estimates based on complex sample designs (Kaplan and Francis, 1979; Wolter, 1985).

The software Survey Data Analysis (SUDAAN), developed at Research Triangle Institute, uses a first-order Taylor series approximation of the deviations of estimates from their expected values. This approximation for large samples is given in Kendall and Stuart (1961). Woodruff (1971) presents the application of this technique to sample surveys.

WESVAR, developed at Westat, uses BRR and Jackknife techniques for computing sampling errors. It can be accessed from Statistical Analysis System (SAS) after installing a load module on a computer.

SUDAAN and WESVAR procedures both include a range of options such as chi-square statistics for contingency tables, variances for functions of multiple variables, standard errors, coefficient of variation, relative variances, and confidence intervals, as well as facilities for conducting hypothesis testing about the elements of the table, and for outputting a file of results. Other software includes OSIRIS, developed at the University of Michigan.

Examples of procedures for mean number of permanent teeth by gender category follow:

TLS (SUDAAN)

```
PROC SUDAAN;  
  NEST      pseudostratum pseudo PSU;  
  WEIGHT    person sampling weight;  
  VAR       edentulous/dentate variable name;  
  SUBGROUP  gender;  
  LEVELS    2;  
  TABLES   gender;
```

BRR (WESVAR)

```
PROC WESVAR METHOD = BRR;  
WEIGHT      person sampling weight  
             replicate weight1 - replicate weight44 variables;  
VAR          edentulous/dentate variable name;  
COMPUTE      meanvar = edentulous/dentate variable name/C;  
FACTOR       100;  
TABLES      gender/COMPUTE (VALUE LIST);
```

where : C is set to 1 for all relevant cases
 meanvar = is a user supplied variable name that is the mean number of
 permanent teeth

Each table will contain the mean of the variable of interest, sample size and weighted population count of persons with valid responses to the analysis variable in each gender category.

APPENDICES

Appendix I. DIAGNOSTIC CRITERIA

The NIDR scoring system includes the following codes for teeth and surfaces:

- **TOOTH CODES**

S, sound crown (no caries or restorations)
R, sound root (no caries or restorations)
Y, exclusion (tooth, root cannot be scored)
E, missing (caries/periodontal disease)
M, missing (orthodontic or non-disease)
U, unerupted
C, full crown coverage

- **SURFACE CODES**

- *Caries*

X, occlusal surface
0, lingual surface
1, buccal surface
2, mesial surface
3, distal surface

- *Restorations*

5, occlusal surface
6, lingual surface
7, buccal surface
8, mesial surface
9, distal surface

- *Recurrent Caries*

55, occlusal surface
66, lingual surface
77, buccal surface
88, mesial surface
99, distal surface

There is no occlusal code, i.e., X or 5, for root surfaces or for the crowns of anterior teeth.

These codes were called by the examiner and electronically converted to the data codes shown in Section III, Public Use File Description.

Coronal Caries

The D component of the DMFS (decayed, missing or filled surface) assessment is diagnosed as follows:

Frank lesions are detected as gross cavitation. Incipient lesions may be subdivided into three categories according to location, each with special diagnostic considerations. The categories are:

A. *Pits and fissures on occlusal, buccal and lingual surfaces:* These areas are diagnosed as carious when the explorer catches after insertion with moderate to firm pressure and when the catch is accompanied by one or more of the following signs of decay:

1. Softness at the base of the area.
2. Opacity adjacent to the area providing evidence of undermining or demineralization.
3. Softened enamel adjacent to the area which may be scraped away with the explorer. (Care should be taken to avoid removal of enamel that could be remineralized.)

In other words, a deep pit or fissure in which the explorer catches is not in itself sufficient evidence of decay; it must be accompanied by at least one of the above-named signs.

B. *Smooth areas on buccal (labial) or lingual surfaces:* These areas are carious if they are decalcified or if there is a white spot as evidence of subsurface demineralization and if the area is found to be soft by:

1. Penetration with the explorer, or
2. Scraping away the enamel with the explorer. (Care should be taken to avoid removal of enamel that could be remineralized.) These areas should be diagnosed as sound when there is only visual evidence of demineralization, but no evidence of softness.

C. *Proximal surfaces:* For areas exposed to direct visual and tactile examination, as when there is no adjacent tooth, the criteria are the same as those for smooth areas on facial or lingual surfaces. For areas not available to direct visual and tactile examination, the following criterion applies: A discontinuity of the enamel in which

the explorer will catch is carious if there is softness. In posterior teeth, visual evidence of undermining under a marginal ridge is not acceptable evidence of a proximal lesion unless a surface break can be entered with the explorer. In the anterior teeth, however, transillumination can serve as a useful aid in discovering proximal lesions. Transillumination is achieved by placing a mirror lingually and positioning the examining light so that it passes through the teeth and reflects into the mirror. If a characteristic shadow or loss of translucency is seen on the proximal surface, then this is indicative of caries on the surface. Ideally, the actual diagnosis should be confirmed with the explorer; however, clear visualization of a lesion by transillumination can justify a positive diagnosis.

The M (missing) component of the DMFS surface assessment traditionally represents only those permanent teeth that have been extracted as a result of caries. For this survey, however, no distinction will be made between teeth lost from caries and those lost for periodontal reasons. It is necessary, however, to distinguish teeth extracted because of caries or periodontal destruction from those extracted or missing for other reasons such as trauma or orthodontics. Therefore, there will be two calls for the missing components: E when the tooth was lost as a result of caries or periodontal destruction and M when the tooth was lost for any other reason.

The F component of the DMFS assessment represents a tooth surface that has been filled, with either a permanent or temporary filling, as a result of caries involvement. Here also it is necessary to distinguish between surfaces restored for caries and those restored for other reasons, such as trauma, hypoplasia, or malformation.

Special Conditions:

1. Coronal caries starts at or just above the cemento-enamel junction (CEJ). If the coronal and root surfaces are both affected by a single lesion, it will be necessary to determine whether the lesion originated at the root or the crown. If more than half of the lesion is above the CEJ, then the site origin is assumed to be coronal surface. If the site of origin is determined to be on the root, no call is made for coronal caries. When the lesion appears to affect the root and coronal surfaces equally, both surfaces should be scored as affected. For restorations, the same rules apply.
2. Teeth restored with full coverage—If a permanent tooth bears a full crown restoration, the examiner must try to determine the reason the crown was placed. If the crown was placed because of disease, the tooth will be coded as C, indicating a 5, 6, 7, 8, or 9 on the posterior tooth, or a 6, 7, 8, or 9 on an anterior tooth. However, if the crown was placed for any other reason, such as a fracture, malformation, or cosmetic reasons, the tooth is scored Y. For the purposes of this survey, abutment teeth with full crown coverage will also be scored C. Note: This rule applies only to permanent teeth with full crowns or jackets. If a fracture, for example, has been restored with

anything less than full coverage, all surfaces not involved by the restoration will be scored as usual.

3. Banded or bracketed teeth—All visible surfaces are to be examined as well as possible and scored in the usual manner.
4. Teeth extracted for orthodontic reasons—Certain teeth, typically first bicuspid, may have been extracted as part of the orthodontic treatment. These are scored as M. The examiner must determine that the teeth were extracted for orthodontic reasons, although this is not usually difficult because of the typically symmetrical patterns of such extractions. Rather than trying to determine whether the extracted teeth are first or second bicuspid, we have adopted the convention of calling them first bicuspid. Teeth other than bicuspid may also be extracted for orthodontic reasons. In many cases the subject will have good recall of the reasons for the extractions and can help the examiner make the correct determination.
5. Non-vital teeth—Non-vital teeth are to be scored in the same manner as vital teeth. If, however, in your opinion a restoration on a non-vital tooth was placed solely to seal a root canal and not for caries, that restoration will not be scored. If no other lesions or restorations are present, the tooth will be called sound.
6. Hypoplastic teeth—If you can determine that a restoration on such a tooth was placed solely for aesthetic reasons and not for caries, that restoration will not be scored. If a hypoplastic tooth is restored with a full crown, it is to be excluded (coded Y).

General Considerations Applicable to Criteria and Other Examination Procedures:

1. Stain or pigmentation alone should not be regarded as indicative of decay.
2. A tooth is considered erupted when any part of its crown projects through the gum.
3. In the case of supernumerary teeth, the examiner must decide which tooth is the "legitimate" occupant of the space. Only that tooth is to be scored.
4. Where both a deciduous and a permanent tooth occupy the same tooth space, only the permanent tooth is called. However, if only a deciduous tooth is present, the space is assigned a U, indicating an unerupted permanent tooth.
5. Third molars are not included in the survey. When examining second molars, it is important to note that a third molar may occupy the space of a missing second molar. If it can be determined that this has occurred, the diagnosis and call must relate to the status of the missing second molar, not the drifted third molar. If the second molar, for example, was extracted due to caries and the space is now occupied by a sound third molar, the second molar is scored E and the third molar is not scored.

6. When the tooth crown is destroyed by caries and only the roots remain, this is recorded as all surfaces carious.
7. If a surface contains both a caries lesion and a restoration, both are called. However, if the caries is contiguous with the restoration, a "recurrent caries" call is made using the double score notation (i.e., 55, 66, 77, 88, or 99). It is possible to have calls of all three types on the same surface. For example, an occlusal surface with a sound restoration, a new lesion, and a restored area with recurrent decay would be coded for all three of these conditions (i.e., X, 5, 55). Note: A defect in the margin is not considered carious in the absence of definitive visual and tactile criteria for caries. As a precaution, avoid excessive probing of the margins of defective restorations that could be dislodged. It is important to examine each filled surface for recurrent decay before making the final surface call. If recurrent decay is discovered after the surface has been called, the recorder will have to erase the original call, leading to possible recording errors.
8. If an adhesive sealant is present in a pit and fissure, and there is no evidence of caries or restoration, that surface would be considered sound. However, sealant used as a restorative material is scored as a filling.
9. When a filling or a lesion on a posterior tooth or a lesion on an anterior tooth extends beyond the line angle onto another surface, then the other surface is also called. However, a proximal filling on an anterior tooth is not considered to involve the adjacent lingual or labial surface unless it extends at least one-third of the distance to the opposite proximal surface.
10. For the purpose of the survey, incisal edges of anterior teeth are not considered as separate surfaces and are not represented as such on the data collection forms. If a lesion or restoration is confined solely to the incisal edge, it should be scored as involving the nearest adjacent surface.
11. An effort should be made to examine each subject in the same manner regardless of the amount of caries or prior treatment. It is well to systematize the examination procedure and to follow the same routine for each examinee. For dental caries the exam forms are set up to start with the upper left central incisor and proceed distally through the second molar. The same procedure is followed in sequence for the upper right, lower left, and lower right quadrants. The examiner should examine the surfaces in the following order: lingual, labial, mesial, and distal for the anterior teeth and occlusal, lingual, buccal, mesial, and distal for the posterior teeth. It is not advisable to call out individual codes as each tooth or surface is examined. This is confusing to the recorder. It is better if the examiner accumulates the diagnostic codes in his or her memory in logical groupings before dictating the calls to the recorder. As an aid to consistency, teeth should be air-dried prior to the examination of each quadrant.

12. Mobile teeth are to be scored in the usual manner but should be examined with caution.
13. Fixed or removable prostheses (full or partial) will be recorded on the form, by arch, if present. It is important to remember that the subject may not be wearing prostheses at the time of examination; the examiner should question the subject to determine whether a wearable prosthesis exists.
14. In the case of full mouth or full arch extractions, the examiner will ascertain whether the appropriate call is E or M for each quadrant. Rather than assigning a code to each missing tooth, the recorder will code the entire quadrant E or M.

Root Surface Caries

Caries occurs in root surfaces of teeth only where there has been loss of normal gingival attachment (apical recession from the CEJ). Generally, caries in root surfaces occurs coronal to the present gingival margin; very few lesions exist solely in the gingival pocket. Although all exposed root surfaces are susceptible, it has been reported that caries predominantly occurs in proximal and buccal aspects.

Root caries starts at or just below the CEJ. Most commonly, early root caries lesions are small and round. However, they may spread laterally along the cervical junction, sometimes coalescing with neighboring lesions to produce a gutter or even a collar of caries around the root. Caries that begins in a root surface does not tend to affect the outer enamel surface directly. Rather, it may undermine the cervical enamel and may exist in coronal dentin, leaving a cervical enamel spur or ledge. If the carious process continues, pieces of this ledge may fracture, making it appear as if caries had originated in the enamel as well as the cementum. The opposite sequence can occur as well, with cervical coronal caries spreading apically to involve the CEJ and then the root surface. Whenever both a coronal surface and a root surface are affected by a single caries lesion, only its likely site of origin should be scored as decayed on the recording form. The likely site of origin can often be determined by clinical appearance. When it is impossible to determine the site of origin, both the coronal and root surfaces should be scored "decayed." For restorations, the same rules apply. The margins of all filled root surfaces should be gently checked for recurrent decay, and the criteria for scoring "decayed and filled" root surfaces should be the same as for coronal surfaces.

Root caries seldom spreads apically. However, because new decay usually starts at or near the gingival margin, with continued loss of gingival attachment (recession), new lesions may develop further down the root. Areas of abrasion or erosion in root surfaces rarely become carious because they are generally kept clean and are free of plaque. Root caries frequently occurs beneath plaque, but rarely beneath calculus. Accumulations of plaque which obstruct the examination procedure should be removed. Surfaces covered entirely by calculus are considered sound.

Active caries lesions in root surfaces are yellow/orange, tan, or light brown in color. Lesions in remission tend to be darker, sometimes almost black. When root caries is covered by small amounts of plaque, the discoloration of the lesion usually shows through.

In some incipient lesions the carious area of the root surface may merely be discolored without cavitation, but the area will be soft to exploration. Cavitation with jagged margins and a roughened but soft floor or base usually occurs in advanced lesions. Normal cementum is softer than enamel and frequently will yield to pressure from the tip of an explorer. Areas of root caries, however, are softer than surrounding cementum; therefore, it is possible to differentiate sound cementum from carious cementum based on tactile sense. In the presence of root caries, an explorer penetrates the tissue but usually can be removed easily. However, if the explorer penetrates but resists withdrawal or "sticks," the surface is usually sound cementum. With experience and training, it is possible to develop a tactile sense to differentiate sound from carious cementum.

N.B. For areas without gross cavitation, visual criteria related to location, shape and discoloration of the suspected area do not, in themselves, define root caries. The tactile criteria of softness to an explorer tip must be met for a definitive diagnosis of root caries to be made.

For the assessment of gingival recession and root caries, each tooth is considered to have four surfaces (aspects), irrespective of the number of its roots. These surfaces are lingual, buccal (labial), mesial, and distal. Because of the constricted anatomy of the root surfaces of lower incisors, few lesions will be confined solely to the lingual surface—only small lesions at the midpoint. Most lingual lesions will also affect the adjacent mesial and/or distal root surfaces. However, lesions of the mesial and distal surfaces which extend lingually but do not reach the midline are only scored as interproximal lesions. On all other teeth, for root caries that appears to wrap around the line angle of the root, the more involved surface is considered the primary site of the lesion and is scored carious, whereas the adjoining surface is only scored as carious when the lesion clearly extends at least 1 mm past the line angle. The tooth and surface codes for the root caries assessment are identical to those for coronal caries, with the exception of the "R" score, which is equivalent to the "S" score, indicating a tooth for which all root surfaces are sound.

All exposed portions of a tooth's root surface should be carefully examined. The most difficult areas to examine are proximal surfaces, in posterior teeth, particularly those that contain proximal restorations. Subgingival inspection is usually unnecessary because few lesions are confined subgingivally and because it may produce bleeding.

Periodontal Destruction

The assessment for periodontal destruction will be made for one maxillary quadrant and one mandibular quadrant. The quadrants will be randomly designated and preprinted on the

examination form. Only teeth in full eruption are to be measured. In this survey, the assessment of periodontal destruction includes periodontal, gingival, and calculus assessments.

Periodontal Assessment. Clinically and quantitatively, the loss of attachment is the distance in millimeters (mm) from the CEJ to the bottom of the pocket. Pocket depth is the distance from the free gingival margin (FGM) to the bottom of the sulcus/pocket.

The NIDR periodontal probe will be used to measure the loss of attachment in buccal (B) and mesial (M) sites. The distance from the FGM to the CEJ and the distance from the FGM to the bottom of the sulcus/pocket will be measured for each site. Where the gingival margin is subject to recession and the CEJ is exposed, the distance from the CEJ to the gingival margin is called a negative value. Loss of attachment will be calculated by the computer program.

The NIDR probe is color coded and graduated at 2, 4, 6, 8, 10, and 12 mm. The periodontal probe is to be held with a light grasp not to exceed 25 grams and pointed toward the apex of the tooth. Each measurement is rounded to the lowest whole millimeter. The probe is inserted from the buccal aspect to measure both buccal and mesial sites.

For the interproximal site (M), the examiner should keep the probe in the direction of the long axis of the tooth as close to the contact point as possible even if the adjacent tooth is missing. For the upper and lower molars, the buccal assessments are always made at the midpoint of the mesial root.

Special considerations in the periodontal assessment:

1. Calculus at the mesial or buccal sites that obscures the CEJ or interferes with the correct placement of the probe is removed using a curette.
2. When a margin of a restoration is below the CEJ, the position of the CEJ will be estimated using adjacent landmarks and dental anatomy.
3. When the CEJ cannot be estimated, the examiner will code Y to exclude the site.
4. When the natural tooth is missing (i.e., implants, partial denture, or pontics), the tooth sites are scored Y. (On the recording form, the missing tooth position should be the same for both the periodontal and caries assessments.)
5. Mobile teeth should be examined with care. The CEJ should be estimated if possible.
6. Orthodontically banded teeth, splinted teeth, and hemisected teeth will be considered on an individual basis and should be examined if possible.

7. Partially erupted teeth and root tips are excluded. (It is necessary to have at least a partial clinical crown, including the CEJ, present for the periodontal assessment.) The code of Y should be used for the mesial and buccal sites of the excluded tooth.

Gingival Assessment. The buccal and mesial sites of one upper quadrant and one lower quadrant will be assessed. A score of 0 or 1 will be assigned for each tooth site; if a tooth is missing or cannot be assessed, a single Y call will be made.

- 0, no bleeding
- 1, bleeding
- Y, cannot be assessed

The teeth should be dried with air before the examiner begins each quadrant. To examine the gingiva adjacent to each tooth, the NIDR probe will be inserted no more than 2 mm into the gingival sulcus, starting just distal to the midpoint of the buccal surface and then moved gently into the mesial interproximal area. After all sites of a single quadrant are probed in this fashion, the bleeding points are assessed. A call of 0 or 1 is made for each buccal and mesial site, beginning with the second molar and continuing to the central incisor.

Calculus Assessment. A single score will be assigned for each designated tooth space, according to the following codes:

- 0, absence of calculus
- 1, supragingival calculus but no subgingival calculus present
- 2, supragingival and subgingival calculus, or subgingival calculus only
- Y, cannot be assessed

Supragingival calculus includes calculus located on the exposed crown and root of the tooth and extends to 1 mm below the free gingival margin (FGM). The assessment for calculus should be made after the teeth in a designated quadrant are dried with air. The examiner should observe the buccal and mesial aspects of each tooth to determine the presence of supragingival calculus and to probe for subgingival calculus using the #17 explorer or the NIDR probe. Once subgingival calculus is detected, the examiner should make a single call and proceed to the next tooth.

When a tooth is missing or cannot be assessed, a single Y call will be made.

Demographic/Dental History Form (Self-Administered)

Demographic and Dental History Form

ID: ----

Demographic and Dental History Profile

Instructions: For each question, please choose the category that best describes your situation.

1. Which of the following do you consider yourself?
(Check one)
 - ☐ White, not of Hispanic origin
 - ☐ White, Hispanic origin
 - ☐ Black, not of Hispanic origin
 - ☐ Black, Hispanic origin
 - ☐ American Indian or Alaskan Native
 - ☐ Asian or Pacific Islander
 - Other _____
(Please specify)
2. How many years of schooling have you completed?
(Check one)
 - ☐ Less than 8 years
 - ☐ 8 through 11 years
 - ☐ 12 years or equivalent
 - ☐ More than 12 years
 - ☐ 13 - 15 years
 - ☐ 16 years or more
3. How many people, including yourself, are currently living in your household?

(Number)
4. Which category represents your household's total yearly income, before taxes? (Check one)

<input type="checkbox"/> Under \$2,500	<input type="checkbox"/> \$20,000 - \$29,999
<input type="checkbox"/> \$2,500 - \$7,499	<input type="checkbox"/> \$30,000 - \$39,999
<input type="checkbox"/> \$7,500 - \$12,499	<input type="checkbox"/> \$40,000 - \$49,999
<input type="checkbox"/> \$12,500 - \$19,999	<input type="checkbox"/> \$50,000 or more
5. Are you covered by any public or private insurance plan that would pay for any part of your dental bills? (Including Medicare and Medicaid)
☐ Yes ☐ No
6. How long has it been since your last visit for dental care? (Check one)
 - ☐ Within past 12 months
 - ☐ 1 - 2 years
 - ☐ 3 - 5 years
 - ☐ More than 5 years
 - ☐ Never received dental care
7. What was the **main** reason for your last visit for dental care? (Check one)
 - ☐ No visit
 - ☐ Regular checkup
 - ☐ To have teeth cleaned
 - ☐ To have teeth filled
 - ☐ To have teeth pulled or other surgery
 - ☐ Toothache
 - ☐ Adjustment or repair of a denture
 - ☐ To have a denture made
 - ☐ For a prescription
 - ☐ Bleeding gums or periodontal disease
 - ☐ Loose teeth
 - ☐ Problems with 3rd molar (wisdom teeth)
 - ☐ Some other reason

(Please specify)
8. Do you feel that you are currently in need of dental treatment?
☐ Yes ☐ No
 If yes, how soon do you feel you need treatment?
 - ☐ Immediately
 - ☐ Within 6 months from now
 - ☐ More than 6 months from now
 - ☐ Not at all
 - ☐ Currently receiving treatment
9. Occupation
 - a. What kind of work do you do?

(For example: Registered nurse, personnel manager, supervisor or order department, gasoline engine assembler, grinder operator)
 - b. What are your most important activities or duties?

(For example: Patient care, directing hiring policies, supervising order clerks, assembling engines, operating grinding mill)

Oral Examination Form—Page 1

NATIONAL SURVEY OF ADULT DENTAL HEALTH									
<div style="display: flex; justify-content: space-between;"> <div> <p>REGION 0 1 2 3 4 5 6 7 8 9</p> <p>PSU 0 1 2 3 4 5 6 7 8 9</p> <p>CLUSTER 0 1 2 3 4 5 6 7 8 9</p> <p>TYPE OF FACILITY 0 1 2 3 4 5 6 7 8 9</p> <p>SIZE 1 2 3 4 5</p> <p>ID 0 1 2 3 4 5 6 7 8 9</p> <p>NO EXAM <input type="checkbox"/> REP <input type="checkbox"/></p> </div> <div> <p>AGE TENS 0 1 2 3 4 5 6 7 8 9</p> <p>UNITS 0 1 2 3 4 5 6 7 8 9</p> <p>SEX <input type="radio"/> M <input type="radio"/> F</p> <p>EXAMINER 1 2 3 4 5 6 7 8 9 10 11</p> <p>RECORDER 1 2 3 4 5 6 7 8 9 10 11</p> </div> <div> <p>NAME</p> <p>DATE</p> <p>AGE</p> <p>SEX</p> <p>EXAMINER</p> <p>RECORDER</p> </div> <div> <p>CORONAL & ROOT CARIES</p> <p>FIXED/REMOVABLE PROTHESIS</p> <p>UPPER FULL <input type="radio"/> PARTIAL <input type="radio"/></p> <p>LOWER FULL <input type="radio"/> PARTIAL <input type="radio"/></p> </div> </div>									
<div style="display: flex; justify-content: space-between;"> <div> <p>NO TEETH <input type="checkbox"/> E M</p> <p>UPPER LEFT</p> <p>OCC 0 6 66</p> <p>LIN 1 7 77</p> <p>BUC 2 8 88</p> <p>MES 3 9 99</p> <p>DIS</p> </div> <div> <p>UPPER RIGHT</p> <p>OCC 0 6 66</p> <p>LIN 1 7 77</p> <p>BUC 2 8 88</p> <p>MES 3 9 99</p> <p>DIS</p> </div> <div> <p>LOWER LEFT</p> <p>OCC 0 6 66</p> <p>LIN 1 7 77</p> <p>BUC 2 8 88</p> <p>MES 3 9 99</p> <p>DIS</p> </div> <div> <p>LOWER RIGHT</p> <p>OCC 0 6 66</p> <p>LIN 1 7 77</p> <p>BUC 2 8 88</p> <p>MES 3 9 99</p> <p>DIS</p> </div> </div>									
<div style="display: flex; justify-content: space-between;"> <div> <p>CENT. INC.</p> <p>LAT. INC.</p> <p>CUSPID</p> <p>1ST BICUSPID</p> <p>2ND BICUSPID</p> <p>1ST MOLAR</p> <p>2ND MOLAR</p> </div> </div>									

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PAGE 2

NATIONAL SURVEY ADULT DENTAL HEALTH

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2ND MOLAR

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UPPER

LOSS OF ATTACHMENT
FGM/CEJ - FGM/POCKET

LOWER

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SCORE

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2ND MOLAR

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CENTRAL

Appendix II. GLOSSARY

20% rule. Quality control measure in which scheduling ensured that no more than 20 percent of the subjects in a PSU were examined by any one examiner.

AARP. American Association of Retired Persons.

ADA. American Dental Association.

BHS. Balanced half-sample, a special case in balanced repeat replications for estimation of variance.

BRR. Balanced repeat replications, a technique for estimation of variance.

CEJ. Cemento-enamel junction.

DFS. Decayed or filled surface.

DMF. Decayed, missing, or filled.

DMFS. Decayed, missing, or filled surface.

DMFT. Decayed, missing, or filled tooth.

DMI. Dun's Marketing Index, a source of information on U.S. businesses available from Dun & Bradstreet, Parsippany, NJ.

FGM. Free gingival margin.

MEC. Mobile examination center.

NCHS. National Center for Health Statistics, Centers for Disease Control, Public Health Service, U.S. Department of Health and Human Services.

NIDR probe. Periodontal probe with 2 mm markings designed expressly for NIDR epidemiologic surveys; its gold coating is patented by the American Dental Manufacturing Company, Missoula, MT.

NTIS. National Technical Information Service (division of the U.S. Department of Commerce), Springfield, VA 22161.

OHEA. Acronym for the National Survey of Oral Health in Employed Adults.

OHS. Acronym for the National Survey of Oral Health in Seniors.

Periodontal destruction. In this survey, dental health parameter determined by periodontal, gingival, and calculus assessments.

PSU. Primary sampling unit, a county or group of contiguous counties.

Recurrent decay. Caries on the crown or root contiguous to a restoration.

RR. Response rate.

SAS. Statistical Analysis System, SAS Institute, Cary, NC.

SIC. Standard Industrial Classification, a coding system for U.S. businesses developed by the U.S. Government.

SMSA. Standard metropolitan statistical area.

Standard examiner. Reference examiner for the purpose of calibrating field examiners.

TSL. Taylor series linearization, a technique for estimation of variance.

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